THIS ISSUE IS IN TWO PARTS — PART 2

Heating Piping & Air Conditioning

MARCH 1961

. . . for CONSULTING ENGINEERS · MECHANICAL (Heating, Piping, and Air Conditioning) CONTRACTORS ENGINEERS WITH PLANTS AND BIG BUILDINGS

HEATING, PIPING & AIR CONDITIONING'S

Trade Literature Supplement

HOW TO USE THIS INFORMATION

Catalogs, bulletins, and other helpful data available to you from advertisers in Heating, Piping & Air Conditioning are briefly described in this supplement. Each description is numbered. Just circle the numbers for those you want on the handy postage-paid card on pages 2-59 and 2-60. Your requests will be passed along to the manufacturers whose literature you ask for.

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Air Distribution, Air Diffusion, Ductwork, Grilles, Etc.

1 Access Doors, Louvers, Dampers

Bulletin 120-160-ACC covers insulated duct access doors; adjustable and stationary louvers; air control fire dampers; back pressure dampers; manual, automatic and motorized wall and horizontal shutters.—Ammerman Co., Inc.

2 Air Diffusers

Bulletin K27-A illustrates and describes linear and rectangular series air diffusers, gives dimensional drawings for several types in each series, and complete selection and performance data, with list of agents. Offered in three series: square, panel, long slotted units combine best air distribution and modern styling.—Connor Engineering Corp.

3 Air Distribution Equipment

Consolidated catalog covers round, square, rectangular and linear diffusers; grilles and registers; stamped metal grilles; and high pressure all-air units. Complete dimensional and engineering data included.—Tuttle & Bailey Div. of Allied Thermal Corp.

4 Air Duct

Twelve page brochure TR-198A describing and illustrating the use of asbestos-cement "Transite" air duct in loop, radial and lateral types of perimeter heating-cooling systems. Gives job data, system design diagrams, facts and photographs about factory-made and segmental fittings, methods of cutting, assembling etc. — Johns-Manville.

5 Air Duct Sealer

"Tuff-Bond" No. 12 high pressure air duct sealer was formulated to caulk and seal joints of high pressure air ducts, and for the installing and coating of tape over these joints. Dries to a tough, firm, flexible film. Applied with a heavy brush coat or a bead from a caulking gun.—Goodloe E. Moore, Inc.

6 Air and Light Diffusers

Catalog F-9768 describes air and light diffusers contained in one unit, manufactured by Barber-Colman Co. and Day-Brite Lighting, Inc. and gives illustrations with line drawings showing construction and operation. Photographs picture various models and include accurate performance data for proper selection.—Barber-Colman Co.

7 All-Air High Velocity Units

Twenty-four page catalog HV-70 on all-air high velocity units for air conditioning, available in many types for providing draftless air diffusion. Advantages are briefly discussed, typical applications described, and dimensions and performance data given. A typical specification is included, as are pictures of high velocity installations.—Anemostat Corp. of America.

8 Aluminum Registers and Grilles

A complete new line of all aluminum grilles and opposed blade dampers designed for use in areas where corrosion is a factor is announced. This is in addition to company's standard types.—Universal Diffuser Corp.

9 Asbestos Seal

Bulletin describes "Asbestoseal."—Duro Dyne Corp.

10 Circular Air Diffusers

Twenty-eight page catalog CI-70 on circular air diffusers, with introductory page on principles and definitions, information on selection, and with dimensions and performance data for supply diffusers, supply and extract diffusers, adjustable supply diffusers, inductive diffusers, diffusers for central systems, for unit heaters, and diffusers with lights. Specifications of the diffusers included.—Anemostat Corp. of America.

11 Copper-Bearing Galvanized Sheets

Sixteen page booklet describes "SofTite Cop-R-Loy" galvanized sheets for air conditioning ducts and other applications. Detailed description, how and where used, manufacturing process, and other subjects are covered and photographs included.—Wheeling Steel Corp.

12 Copper and Brass Products

Thirty-two page stock list catalog lists sizes of sheet, roll, strip, rod, wire, tubing, pipe, roofing materials and other related copper and brass products, with applicable gauge and weight data. —C. G. Hussey & Co. (Div. of Copper Range Co.)

13 Diffuser for Roof Type Units

Development of new type of supply and return diffuser "MPK-SR-E" is announced. Diffuser comes in four models and is designed specifically for use with roof type, self-contained air conditioning units.—Universal Diffuser Corp.

14 Door Grilles

Catalog F-8308-2 gives complete information on "Site-Tite" and "Lite-Tite" grilles. Provides dimensions, sizing charts and application information for all types of "Uni-Flo" door grilles.—Barber-Colman Co.

15 Dual Duct Air Conditioning

Guide details features of high velocity dual duct air conditioning systems and shows typical arrangements for architects and consulting engineers. — Buensod-Stacey Corp.

16 Dual Duct Air Conditioning Air Mixing Units

Sixteen page bulletin DD-6 gives information on dual duct air mixing units for use in high or low pressure dual duct air conditioning systems with supplementary items such as enclosures, distributing headers, high velocity outlets, etc. — Buensod-Stacey Corp.

17 Dual Purpose Air Handling Unit

Twenty-four page bulletin DD-5 describes large central station equipment for dual duct or multizone air conditioning systems complete with fans, filters, cooling and heating coils, automatic dampers, sprays, pumps, etc.—Buensod-Stacey Corp.

18 Duct Liner Adhesive

"Tuff-Bond" No. 6 is a nonflammable, fire retardant duct liner adhesive which was developed to fill a need for an adhesive which would be fire retardant when dry and nonflammable in the wet state. Meets interim federal standard 00136.—Goodloe E. Moore, Inc.

19 Exterior Stationary Louver

Rain and snowproof louver of all steel or aluminum and aluminized steel described in catalog 61.—A-J Mfg. Co.

20 Extruded Aluminum Air Diffusers

Catalog EAG 7-59 illustrates, gives information on line of extruded aluminum grilles, registers and air diffusers in wide range of sizes, many border types, for ceiling, sidewall and floor applications. Line of extruded aluminum outside louvers and louver penthouses also shown.—Titus Mfg. Corp.

21 Extruded Aluminum Grilles

Technical catalog LD-100 contains performance data, selecting and sizing methods of "Agitair Decoraire" extruded aluminum grilles in 12 sizes with three degrees of deflection (0, 15 and 25 deg) and in widths of 1½, 2, 3, 3½, 4, and 6 in. Catalog also illustrates a group of modern design extruded aluminum borders. — Air Devices Inc.

22 Fabricated Grilles

Bulletin 43 illustrates, describes heavy duty bar type grilles — all steel or all aluminum — designed and built to give best possible combination of strength and high open area. Widely used in modern schools, colleges, hospitals, ocean liners, sports arenas, etc. Built to order (no standard sizes) in any required rectangular size or shape.—Diamond Mfg. Co.

23 Fan-Coil Conditioners

Universal room fan-coil conditioners in four basic types for 11 different perimeter and ceiling applications described in form K115. 10-TM. Basic types are floor and wall supported, ceiling mounted and furred above ceiling; for use with any conventional two-pipe system or three-pipe system and available with variety of optional equipment.—York Div. of Borg-Warner Corp.

24 Fire Damper

VWNYT-1 fire damper, produced under factory inspection and label service of Underwriters' Laboratories, is described in catalog. Also covered is line of high pressure, automatic and manual dampers; extruded aluminum, stationary and adjustable louvers; and automatic and backdraft dampers.—Imperial Damper Co.

25 Fire Vents

New 8 page technical report, bulletin FY-R59, gives the latest data on how to choose and position fire vents. Fire hazard rating charts simplify selection of appropriate number of vents required for a given area. The "Pyroport", "Smokeport" and "Smokehatch" are described for specific job applications. — Penn Ventilator Co. Inc.

26 Flexible Connector Ducts

Catalog 10-19 A/C, "The Facts About Thermaflex", contains information on UL approved flexible connector ducts for air distribution systems. Includes diameters, lengths, constructions, air friction charts, and engineering information.—Flexible Tubing Corp.

27 Floor Openings

Brochure "Diamond Times No. 3" covers the drilling of openings in floors for duct work, grilles, etc. and also explains other accomplishments of diamond bit drilling.—E. J. Longyear Co.

28 Grilles

Catalog 36, 100 pages (AIA File 30-E) illustrates, describes architectural grilles, stamped out of steel, aluminum, bronze or any other commercial metal, in any thickness up to ¼ in. Shows unit openings actual size, gives complete working data. Illustrates, describes other products for heating, ventilating, air conditioning.—Diamond Mfg. Co.

29 High Velocity Acoustic Terminal Units

Thirty-six page catalog presents engineering information on high velocity systems, including data on system noise, duct design and control methods. Contains detailed description of simplified ATC units with all-pneumatic constant volume control.—Carnes Corp.

30 High Velocity Air Conditioning Data

New data file is designed to help the air conditioning industry utilize the advantages of high

velocity air transmission and distribution. Discusses what high velocity is, what it can do and where it should be used, duct design and construction, and temperature control. — Barber-Colman Co.

31 High Velocity Induction Unit

Twelve page brochure 36R-80 describes high velocity induction unit 36R bypass "Weathermaster", which features a self-contained automatic air bypass control. New kind of control replaces external pneumatic control systems and water valves. — Carrier Air Conditioning Co., A Div. of Carrier Corp.

32 Jet Induction Type Diffusers

New 24 page technical catalog contains complete performance data in tabular form and formula for selecting, sizing and applying "Agitair" custom designed air diffusers with built-in diffusing vanes and high induction jets. A few of the unlimited air pattern arrangements are shown. — Air Devices Inc.

33 Linear Strip Diffuser

Improved model of "Line-Air" linear strip diffuser has outside frame ¼ in. wide. Innovation provides another streamlined, decorative long strip diffuser.—Universal Diffuser Corp.

34 Louvers and Dampers

New literature describes louvers, damper-louvers, penthouses and accessory dampers. Both extruded aluminum and sheet metal products are described, including new 2 in. extruded L-32 louver, mitered penthouses, and mitered linear louvers.—Carnes Corp.

35 Mixed Flow Fan

New MAC mixed flow fan designed for ventilating and air conditioning applications combines integral economical space-saving advantages of the axial, with true non-overloading horsepower curve of the centrifugal, featuring constantly rising, non-peaking pressure curve. Complete range of sizes, direct or belt driven.—Air Motion Research, Div. Missile Dynamics Corp.

36 Mixing Boxes

Catalog HV-100 illustrates and describes "Agitair" O series one motor constant volume "Hi-Vel" mixing boxes with noise attenuator units. Complete performance data in tabular form, dimension drawings and specifications are included. — Air Devices Inc.

37 Motorless Valve Attenuator

Bulletin K-45 describes new "Kno-Draft" series 45P valve attenuator, which uses no motors or linkage of any kind and is designed for use in dual duct high velocity air distribution systems. Features are listed, function explained, along with performance data and dimensions.—Connor Engineering Corp.

38 Perforated Ceiling Diffusers

Catalog TPD-60 pictures and describes complete line of TCS and TCR series of square and rectangular perforated ceiling diffusers including engineering, application and selection data. These supply and return units are available for all types of ceiling mountings including recessed, surface, inverted T-bar, etc. — Titus Mfg. Corp.

39 Plastic Modular Diffuser

Catalog 460 contains complete details on new plastic model M modular diffuser, which reportedly solves any air handling or design problems. Illustrates versatility of modular diffuser through combining multiples of three basic 6 in. square modules — one-way, two-way and corner throw. —Carnes Corp.

40 Prefabricated Duct and Fittings

Eight page bulletin 59 gives dimensional and other information and list prices for galvanized prefabricated duct and fittings.—Modern Metals, Inc.

41 Registers, Grilles, Diffusers

Catalog 61 describes registers, grilles and diffusers for heating, cooling and ventilating applications. — A-J Mfg. Co.

42 Registers, Grilles and Diffusers

Sixty-eight page catalog A for 1960 on air conditioning registers, air conditioning grilles, air conditioning diffusers, pressure dampers and accessories. The index includes products for residential-gravity, and commercial and industrial. —United States Register Co.

43 Regulators, Registers, Grilles and Diffusers

A complete line of manually controlled surface, concealed, high pressure floor-line, remote control and air-split regulators; dampers; adjustable air conditioning registers, grilles and baseboard diffusers, for every type of heating and air conditioning installation. — Young Regulator Co.

44 Sightproof Grilles

Sightproof "No-Vision" grilles of steel or aluminum for panels and doors are described. Sight and lightproof grilles for darkroom and similar applications are also covered in bulletin. — A-J Mfg. Co.

45 Square Air Diffusers

Sixteen page catalog SQ-70 on square air diffusers, with discussion of principles and definitions, information on selection, specifications, and dimensions and performance data for supply diffusers, induction diffusers, adjustable supply diffusers, panel type diffusers, and supply and extract diffusers. — Anemostat Corp. of America.

46 Supply and Return Grilles and Registers

Thirty-six page catalog GL-159R illustrates and gives comprehensive engineering, performance and selection data on complete line of supply and return grilles and registers. Includes data on gymnasium and door grilles and full line of accessories, including volume controllers and extractors. — Titus Mfg. Corp.

47 Thermoplastic Sheets

Thermoplastic sheets can be used in production of ducts or enclosures in fire retardant, self-extinguishing materials as well as those that have specific chemical resistance.—Southern Plastics Co.

48 Wall Grilles

Catalog covers "Fabrikated" wall grilles of steel or aluminum for commercial installations. Special large sizes are made for schools, hospitals, hotels and commercial structures of all kinds. They feature a solid bar, rigid construction and are resistant to impact.—The Independent Register Co.

Air Filters & Air Cleaners

49 Air Filter Gages

Bulletin C-1 presents standard line of three types of gages, including architect-engineering specification data. The air filter gages provide a continuous check on the efficiency of all types of filters which is necessary for maximum overall economy.—F. W. Dwyer Mfg. Co.

50 Air Filters

Catalog shows graphs, charts, and other technical data on permanent washable "Dust-magnet" electrostatic air filters with "Poly-mag 80."—Stoddard Industries, Inc.

51 Air Filtration

Forty page brochure, "Micromat System of Air Filtration," discusses air pollution, principles of air filtration and the application of various types of synthetic fiber media in commercial, industrial, institutional and residential installations, with six media types included.—Microtron Corp.

52 Automatic Air Filters

New bulletins 819a and 822a on vertical and horizontal (respectively) roll-away type, automatically controlled air filters that clean the air at low cost per cubic foot. Listed by Underwriters' Laboratories. They deliver dependable automatic performance with minimum of maintenance attention; delivered to job site fully assembled.—Continental Air Filters, Inc.

53 Automatic Renewable Media Filter

Bulletin 248-E describes new type H "Roll-O-Matic" automatic renewable media air filter, ideal for use with central station air handling units. Media can be changed from outside plenum, eliminating need to enter duct for filter maintenance. Operated automatically from any position. Available for standard or reverse air flow.—American Air Filter Co., Inc.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

54 Cube Replacement Air Filter

Four page technical bulletin describes physical properties and uses of "Ulok" cube type replacement air filter. The largest cube shape presents more filtering surface (1832 sq in.) to the air stream, providing for higher efficiency over far longer life with unusually low pressure drop.—Union Carbide Development Co., Div. of Union Carbide Corp.

55 Dry Type, High Efficiency Filter

Bulletin 228 describes new "Dri-Pak" 2000 dry type, high efficiency, low resistance air filter which handles more air and eliminates costly back-up wire grid and metal enclosures. Uses collapsible and disposable cartridges, reduces filter maintenance. Glass fiber filtering media offers up to 97 percent air cleaning efficiencies.—American Air Filter Co., Inc.

56 Filter for Shelter Ventilation

Technical products release 1502 describes C-B-R packaged filter unit for protection against chemical, bacteriological and radiological warfare agents when used in shelter ventilation systems. Meets specifications prepared by USAF-BMD.—Mine Safety Appliances Co.

57 Flat Replacement Air Filter

Four page technical bulletin describes physical properties and uses of flat "Ulok" replacement air filter. Introduces new and advanced materials and designs to filter air efficiently. Included are graphs showing effectiveness of the air filter. —Union Carbide Development Co., Div. of Union Carbide Corp.

58 Air Filter

Technical data bulletin describes and illustrates RPM1-P series "Roto-Aire" filter, a combination replaceable media air filter and activated charcoal air purifier. Both filter and adsorber sections are contained in a single case. — Burke and Co.

59 Grease Filters

Permanent, cleanable type "Airsan" grease filter made especially for range canopies, galleys and

kitchens described in bulletin L-504. Available in 2 in. thickness.—Air Filter Corp.

60 High Efficiency Air Filters

Bulletin 132 describes "Aerosolve" high efficiency, low pressure drop, comfort air conditioning filters in efficiency range of 45 to 95 percent with atmospheric dust (NBS dust spot method). Shows efficiencies by various tests, contains design and layout data. These positive filters are easily installed and changed.—Cambridge Filter Corp.

61 High Performance Disposable Filters

Bulletin B-1300-4A features HP filters with disposable filter cartridge that is lightweight, interchangeable, and deep pleated to provide large dirt holding capacity. They are collapsible, come folded in cartons of five or ten units for easier handling, storage. Efficiencies from 35 to 95 percent by the NBS type test (atmospheric).—Farr Co.

62 High Velocity Air Filters

"Airsan" air filters, covered in bulletin W-802, have specially designed high velocity "Viro-Crimp" filter media and are available in 2 and 4 in. thicknesses. Hemmed edges provide safety feature. Operate efficiently at 300 to 600 fpm. —Air Filter Corp.

63 High Velocity Air Filters

Bulletin 423 describes "E-Z-Wash" high velocity all-metal permanent air filter available in lacquered steel or aluminum. Offers high efficiency with low resistance. Functions with satisfaction at face velocities between 350 and 600 fpm. "E-Z-Oil" aerosol bombs available for re-oiling. —Continental Air Filters, Inc.

64 High Velocity Panel Air Filters

Type 44 panel filters, described in bulletin B-100-2B, are metal, lightweight, permanent type for ventilating and air conditioning use. Work equally well on paint, moisture and grease elimination. Permanent and cleanable, filters are ruggedly constructed and rod reinforced to last the life of the system.—Farr Co.

65 Low Velocity Air Filters

Bulletin 302 on "Airsan" low velocity air filters of viscous impingement type, permanent and cleanable.. Designed for industrial, commercial and domestic use, filters are available in 1 and 2 in. thicknesses.—Air Filter Corp.

66 Permanent Air Filter Panels

"Kleenflo" filters are viscous impingement type, permanent, all-metal air filter panels particularly adaptable to recirculating air systems.—Air-Maze Div., Rockwell-Standard Corp.

67 Roll Type Disposable Media Filter

V-7 "Roll-Kleen" air filter cleans air by means of disposable filtering media which unwinds from supply roll at top of unit and winds used media on roll at bottom. Described in 8 page bulletin B-1400-8. Filter presents clean media automatically when required. Either automatic drive or manual operation.—Farr Co.

68 Synthetic Fiber Air Filters

Bulletin 431 on "Dycon" air filters which have graded synthetic fibers bonded into wool-like blanket, supported in aluminum frame, remove and retain even very fine dust particles from air stream. Dust collected throughout entire depth of media. Flushing with cold water restores filter to original resistance and dust holding capacity. Blanket can be replaced eventually.—Continental Air Filters, Inc.

69 Washable Air Filter

Four page brochure gives properties and performance data of "Microfoam" washable plastic air filter, a lightweight, corrosion resistant filter medium with high efficiency and dirt-loading capacity and minimum air flow resistance, with or without adhesive.—Microtron Corp.

70 Washable Dry Type Air Filters

Type P-61 is a washable, dry type air filter for heating and ventilating applications. Recommended for use where viscous coatings cannot be tolerated. Cleaned with water and detergents. —Air-Maze Div., Rockwell-Standard Corp.

Atomizing & Spray Nozzles

71 Industrial Spray Nozzles

Twenty page catalog I covers general industrial spray nozzles for all types of spraying applications — humidifying, gas scrubbing, wax coating, chemical processing, cooling towers, spray drying, re-cooling, etc.—Monarch Mfg. Works, Inc.

72 Oil Burner Nozzles

Twelve page catalog O covering stainless steel domestic oil burner nozzles as well as hardened steel nozzles for heavy oil, variable capacity "by-passing" nozzles, air operated nozzles and oil burner air mixing equipment.—Monarch Mfg. Works, Inc.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

Cements, Adhesives & Tapes

73 Adhesives for Duct Insulation

New catalog lists seven general purpose and special adhesives for fast, permanent bonding of light and medium density insulation to ducts. Properties include fire retardance; resistance to heat, cold, water and humidity; long tack range; high strength and wet strength.—St. Clair Rubber Co.

74 Adhesives for Insulation

Four page catalog contains basic information on a variety of adhesives for bonding high and low density insulation materials to sheet metal ducts; both solvent types and water dispersed adhesive products included. Data on a duct seam sealer for use on high pressure systems is covered in catalog.—Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div.

75 Adhesives for Mounting Junction Boxes

PA-1041 epoxy resin electrical junction box mount is used for adhering to masonry walls, ceilings, and floors and to metal beams and wood surfaces. Material is packaged in separator type cup which is the mixing container. Eliminates toggle or expansion bolts, drilling.—Permacel.

76 Corrosion Control for Buried Piping

"Corr-Prev" tape coating system is combination of primer, tape, overwrap and machine rental designed for user of products for corrosion control of buried piping stuctures.—Chase & Sons, Inc.

77 Corrosion Control of Buried Piping

"Corr-Prev" system of protective tape coatings embodies four pipe coating items — "Chaseprime, "Chasefil," "Chasekote" (tape) and "Chasewrap" (overwrap). In combinations with "Tapechasers" (application machines), system offers complete package for corrosion control of buried piping structures. Described in four page folder HCG 7369.—Chase & Sons, Inc.

78 Fire Retardant Duct Liner Adhesive

"Tuff-Bond" No. 7 is a synthetic fire retardant duct liner rubber base adhesive, waterproof, brush or trowel consistency and with a wide temperature range. It is especially formulated for bonding of insulating materials, both porous and non-porous, and is an excellent vapor barrier. Recommended for taping and sealing of joints of insulation.—Goodloe E. Moore, Inc.

79 Foam Board Adhesive

EZ-4523 is a solvent type, quick setting adhesive designed to bond expanded polystyrene foam board to a variety of surfaces, at the same time eliminating solvent attack on the foam board. Used on wood, metal, masonite, other surfaces. Applied by brush, spray gun.—Permacel. macel.

80 Insulation Adhesives and Coatings

Four page "Mira" data sheet 11 lists adhesives and coatings for insulation and includes a chart for selecting adhesives for each of the types of insulation.—Miracle Adhesives Corp.

81 Masking Tapes

Leaflet describes "Shurtape" masking tapes of various types, including general purpose, stain resistant, and high temperature. Each is engineered with special features to meet special job requirements, it is pointed out in the leaflet.—Shuford Mills, Inc.

82 Pipe Dope

"Ribbon Dope" thread sealant for pipe joint sealing comes in roll form to eliminate spillage, shrinkage, evaporation, and need for brushes. Protects pipe joints against corrosive action. Self-lubricating for easy assembly, disassembly. —Permacel.

83 Pressure Sensitive Tapes

Booklet HCG 8798 on typical specifications of the tape coating constructions used on cylindrical exterior surfaces describes product property and application requisites for use of tape coatings and accessories for corrosion control with pressure sensitive tapes.—Chase & Sons, Inc.

84 Sealing Compounds

Twelve page bulletin 7009 on "Titeseal" sealing compounds for many uses, including steam and water lines and connections, boiler and radiator assemblies, water systems, oil lines, natural and LP gas fittings, process piping, vacuum pumps, and others. Acts as sealant, gasket, and lubricant. Many types.—Radiator Specialty Co.

85 Specialty Tapes

Leaflet describes "Shurtape" specialty tapes developed and engineered for specific purposes. Eight types are briefly described and illustrated, including metallized paper insulation tape.—Shuford Mills, Inc.

86 Strapping Tapes

Leaflet describes "Shurtape" strapping tapes, each of which is engineered to meet special job requirements. Types illustrated are flatback paper, glass filament reinforced; and woven glass "Mylar" laminated strapping tape.—Shuford Mills, Inc.

Controls & Instruments

87 Air Conditioning Control Center

Two page form 76-4224 describes air conditioning selector control center for single zone systems, explains many advantages of having complete fingertip control of the three system functions—temperature, fan system and ventilation—from one central location. Panel is illustrated in full color, showing the convenient control dials.—Minneapolis-Honeywell Regulator Co.

88 Air Loaded Pressure Regulators

New line of ½ to 4 in. automatic pressure reducing valves of bronze, iron or steel bodies, are made with "Piggy-Back" reservoir for air loading where plant air service is not available. Choice of six different arrangements for reservoir loading of line of valves described in bulletin 561-C are outlined in companion bulletion 604.—Leslie Co.

89 Air Velocity Measuring

The "Velometer" is an air velocity measuring instrument that gives instantaneous readings in fpm without calculations, slide rule or stop watches. Comes complete with wide variety of jets for suction, discharge, velocities as well as static pressure and total pressure readings.—Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc.

90 Automatic Control Handbook

Handbook F-9538 for architects, engineers, contractors, and users on "Electrionic" automatic control reviews the basic principles and advantages of electronic and electric control equipment, provides the reader with a working knowledge of electronic control operation. All information is directed primarily to heating, ventilating and air conditioning application.—Barber-Colman Co.

91 Automatic Zone Valves

Bulletin 1065-D14 details operation and installation of automatic zone valves for control of hot water, steam and radiant heating systems.—Sarco Co., Inc.

92 Combustion Safeguard Control Centers

Twenty page bulletin C11 describes nine custom-engineered control centers and systems for combustion safeguard and automation. The starting sequences and design data are tabulated for each system and range up to a three boiler system with a combined steam flow of about 200,000 lb per hr.—Webster Engineering, Div. of Midland-Ross Corp.

93 Control in School Classrooms

Catalog F-9975 describes the package control systems used in today's conventional unit ventilators for classrooms. All aspects of classroom heating are covered, along with the unique sampling chamber method of control which eliminates need for wall thermostats.—Barber-Colman Co.

94 Control Units and Stations

Publication 6090 describes pushbuttons, selector switches, pilot lights, enclosures and flush plates in standard duty, heavy duty and the oiltight construction.—Allen-Bradley Co.

95 Dial Type Tank Level Gages

Bulletin 463A illustrates dial type tank level gages for almost any size tank or liquid with models available for pressure applications up to 200 psi. Remote reading hydraulic system features completely automatic indication independent of any outside source of power.—The Liquidometer Corp.

96 Engineers' Guide for Automatic Control

Brochure F-8944 completely describes "Electrionic" control system for heating, ventilating, air conditioning. Features a control selecting guide which lists all factors to consider when selecting a control system for a commercial or industrial insulation. Individually describes electric, electronic and "Electrionic" systems.—Barber-Colman Co.

97 Flow Switches

Bulletin FSI-A describes a dependable, moderately priced type of automatic control or safety device that makes or breaks electrical circuit when flow in a pipe starts or stops. Shows wide variety of uses, such as controlling signal devices, alarms, motors, burners and metering devices. Typical use in air conditioning is detailed.—McDonnell & Miller, Inc.

98 Fluid Power Electric Valve

Four page form 76-4228 is an explanatory folder which details new fluid power electric valve for automatic control of radiators, convectors and fan-coil units. Photograph of valve in actual size is featured. Also highlighted are valve's neat design, quick response, unprecedented quietness, sealed-in reliability, rugged construction.—Minneapolis-Honeywell Regulator Co.

99 Gages and Controls

Complete gage and control catalog contains illustrations, prices and full details on "Magnehelic" gages, manometers, air velocity meters, air filter gages, pitot tubes, pressure actuated

switches, flow meters, combustion testing instruments. Diagrams, conversion curves, other technical data included.—F. W. Dwyer Mfg. Co.

100 Gages and Needle Valves

Catalog 76-G lists entire line of gages for all types of industry, including heating. Detailed listings insofar as ranges and sizes, as well as line drawings giving roughing-in dimensions of all of the gages shown, are included.—Marsh Instrument Co., Div. of Colorado Oil and Gas Corp.

101 Gages, Thermometers, Controls

Six page bulletin 3020 describes thermometers, pressure gauges and control instruments. Included under thermometers are glass tube, panel and multi-angle type. Pressure gauges are the bourdon tube type — photos illustrate 10 types covered.—United States Gauge Div., American Machine & Metals, Inc.

102 Indicating, Recording Gages

Catalog 300B, 112 pages, covers "Ashcroft" lines of indicating, recording and test gauges and gauge testing equipment. Specifications, ranges, materials and dimensions given. Lines include "Duragauge," quality and drawn case gauges, plus dead weight tester, portable test pump, vacuum gauge tester, and inspector's kit. —Manning, Maxwell & Moore, Inc.

103 Indicating Systems

Bulletin 632 gives schematic description of each indicating system with information which assists in selection of the particular system for a given application. Includes suggested specifications.—The Liquidometer Corp.

104 Industrial Thermometers

Comprehensive lines of "American" thermometers, such as bi-metal, mercury, vapor pressure, gas actuated dial, red mercury tubing, industrial glass, and recording thermometers in round or rectangular cases in mercury, vapor pressure or gas actuation are described in 84 page catalog 100A. Each is illustrated along with dimensional drawings, specifications, ranges, materials.—Manning, Maxwell & Moore, Inc.

105 Industrial Thermometers

Bulletin 59-A covers industrial thermometers, available in six standard forms, which offer red-reading mercury tubing with front magnifying lens for greatest visibility. Die cast black aluminum case assures a dust-tight, moisture-tight, rattleproof frame. Choice of 7 or 9 in. sizes in ranges of minus 40 to 1150 F or equivalent in centrigrade.—Tagliabue Div., Marshalltown Mfg., Inc.

106 Instrument Specification Bulletin

Four page specification bulletin of instruments primarily designed for use by heating, piping and air conditioning field illustrates and describes pressure gauges, industrial and dial thermometers, recording thermometers, hygrometers and bi-metal thermometers. Typical locations of each type of instrument and specifying information included.—Weksler Instruments Corp.

107 Liquid Level Controls

New catalog describes displacement type top mounting units for pump control and/or alarms on tanks, sumps, receivers for storage, sewage or condensate. Technical data, dimensions, selection charts on both single stage and tandem units. Describes features which provide flexibility in application and dependability, even with dirty liquids, surging conditions.—Magnetrol, Inc.

108 Liquid Level and Flow Control

Bulletin ERS-A, on special applications of manufacturer's products, covers a wide variety of liquid level and flow control applications—on standby pumps, hydro-pneumatic tanks, water chillers, proportioning systems, etc. All in all, there are 21 specific case studies and each one can suggest others.—McDonnell & Miller, Inc.

109 Magnetic Motor Controls

Six page circular describes unique design principles used in RA magnetic motor controls, shows how they make it possible to provide superior performance in unit half size, weight of conventional controls. Also described is new A-H ambient compensated overload relay, which provides accurate overload protection regardless of heat or cold variations.—The Arrow-Hart & Hegeman Electric Co., Industrial Control Div.

110 Mercury Switch Controls

Fixty-six page catalog 860 lists mercury switch equipped controls for single stage, two-stage and differential pressures; single-stage and two-stage temperatures; liquid level and mechanical movement. Illustrates transformer-relays and complete line of hermetically sealed mercury switches.—The Mercoid Corp.

111 Modulating Feedwater Control

Release gives advantages of new electrical feedwater control system. Incorporates high, low alarms, and low water cut-off with modulating control in single water column chamber. Electrically operated, single seated valve provides excellent response, stability over 2 in. throttling range, and tight shut-off.—Magnetrol, Inc.

112 On-the-Job Communication System

Bulletin A17 covering all transistor two-way radios includes detailed data and specifications on two models of a completely portable pocketsize walkie-talkie for routing and adjusting operations and a base station model for office or mobile operations. Operating on the same frequencies, they can be used in conjunction to provide an on-the-job communication system.—Osborne Electronics Corp.

When you make use of the handy reply card on pages 2-59 and 2-60 to ask for copies of the catalogs, bulletins and other data reviewed here, please type or print your name and address clearly so that the information you want can be sent you without delay. And don't forget to include your name and address on the card! Some of the cards have been returned to us without this essential information.

113 Pipe Line Thermometers

Catalog 110 covers pipe line thermometers available in 5, 7, 8, 9 and 12 in. bronze case and red reading mercury tubing, with separable socket connections in various lengths to suit individual requirements.—The Philadelphia Thermometer Co.

114 Pneumatic Control Centers

Twelve page bulletin S-103 describes the functions, applications, and operation of centralized pneumatic controls for air conditioning, heating, and ventilating systems. The advantages of using pneumatic transmission are explained and the latest developments in control center instrumentation are shown.—Johnson Service Co.

115 Pneumatic Control Systems

Bulletin M-101 explains the principles of pneumatic controls for heating, cooling, ventilating, air conditioning and industrial processes. Controls and controlled devices are shown in detail and typical applications that range from the simple thermostat-valve arrangements to complex dual duct control systems are covered.—Johnson Service Co.

116 Pressure Gages

"Acragage" line of pressure, vacuum and compound gages offers solid front safety construction as standard feature. Catalog G gives information on such features as full area blow-out disc which permits greater ease of maintenance, and on longer Bourdon tubes.—Robertshaw-Fulton Controls Co., Fulton Sylphon Div.

117 Pressure Regulator

Bulletin 356 is source of information on series 200 pressure regulators for variety of industrial and heating processes. Layouts for typical vacuum control, pressure reducing system, pump by-pass control and refrigeration control illustrated, showing how this pneumatically operated instrument can be used to advantage. Specifications include dimensions, operating pressure ranges.—The Powers Regulator Co.

118 Pressure, Temperature Recorders

Eight page catalog 800 describes temperature and pressure recorders, lists optional construction features which assist in specifying recorders for special applications, pictures temperature elements, gives performance characteristics.—United States Gauge Div., American Machine & Metals, Inc.

119 Pump Control and Level Indicator

New bulletin AC-100 describes "Vis-A-Trol" automatic pump control and liquid level indicator. Control system includes measuring device which shows depth of liquid in pit and permits comparison of pumping rate with in-flow at all times without looking into wet pit.—Weil Pump Co.

120 Receiver Gages

Eight page catalog 520 describes complete line of dial indicating receiver gauges which are special purpose, low pressure gauges used to indicate values transmitted by pneumatic signal from a remote location, usually in the range of 3-15 psi. Complete specifications given.—United States Gauge Div., American Machine & Metals, Inc.

121 Refrigerating and Air Conditioning Controls

Catalog contains installation, application, tabular and descriptive information for sizing and selecting thermostatic expansion valves, refrigerant distributors, solenoid valves, suction line regulators, hot gas bypass valves, float switches, high side float valves, evaporator controls and reversing valves for all refrigerants and all types of applications.—Alco Valve Co.

122 Regulators, Registers, Grilles and Diffusers

A complete line of manually controlled surface, concealed, high pressure, floor-line, remote control and air-split regulators; dampers; adjustable air conditioning registers, grilles and baseboard diffusers.—Young Regulator Co.

123 Regulators, Valves, Expansion Joints

Eight page condensed catalog 1700 presents products for building construction and maintenance, including temperature regulators, pressure regulators, radiator valves, expansion joints, etc.—Robertshaw-Fulton Controls Co., Fulton Sylphon Div.

124 Selector for Motor Starters

Flip-type selector for wall or desk use makes it easy to select and specify the correct magnetic or manual starter for use with any single or polyphase 60 cycle, 1800 rpm, a-c squirrel cage motor. Includes data on heaters, pushbuttons, as well as on other auxiliary equipment.—The Arrow-Hart & Hegeman Electric Co., Industrial Control Div.

125 Standard Mercury Thermostats

New line of "Vap-Air" standard mercury thermostats featuring low cost and 30 day delivery are described in 18 page bulletin 681—the well type for sensing case temperature, the duct type for gas or fluid temperature sensing, and the surface type for "area contact" temperature sensing. —Vapor Heating Corp.

126 Starting Synchronous Motors

Booklet 6092 deals with starting low voltage synchronous motors up to 600 volts, and gives applications.—Allen-Bradley Co.

127 Starting Wound Rotor Motors

Publication 6093 contains information for applying wound rotor control and deals with starting and speed regulation of wound rotor motors up to 600 volts.—Allen-Bradley Co.

128 Surface Temperature Pyrometer

The "Pyrocon" pyrometer for measuring surface temperatures is supplied in ranges from 0 to 300 F up to 0 to 1600 F. A wide variety of thermocouples primarily used for checking steam traps and thermal expansion valves is available. —Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc.

129 Temperature Control Instrument

The "Pyrotroller" is a temperature control instrument in a completely redesigned form, features flux-gate sensing coils which make contact unnecessary. Available with either single or double target controls.—Alnor Instrument Co., Div. of Illinois Testing Laboratories, Inc.

130 Temperature Regulator

Bulletin 370-1 describes series 200 temperature regulator for pneumatic control of air and liquid temperatures in variety of industrial processes. Full exposed view of instrument's interior illustrates important features. Several layouts detailing typical applications, temperature ranges, dimensions and other data included.—The Powers Regulator Co.

131 Transmitter-Receiver Systems

Transmitters, receiver-controllers and gauges for remote control and indication of temperature described in bulletin 371. Typical remote air conditioning indicating system, hot water control, process control, other applications shown. Instruments for control of storage heaters, heat exchangers, fuel oil heaters, low temperature water systems and similar equipment recommended. Pneumatically operated.—The Powers Regulator Co.

Drying & Process Equipment

132 Air Conditioning Apparatus

Bulletin 135 describes and illustrates unit apparatus for specialized, complete function air conditioning, heat removal by the air method, air cooled heat exchangers, cooling fluids, condensing vapors. Applications include product conversion, heat and moisture control for materials, drying, packaging, testing, refrigeration, freezing.—Niagara Blower Co.

133 Liquid Phase Heater

Bulletin 4023 describes new "Modulatic Hi-R-Temp" liquid phase heater which provides high temperatures at lower pressures. Fire is automatically proportioned over the full modulating range.—Vapor Heating Corp.

134 Low Temperature Continuous Dryers

Brochure K-156, "Engineered Drying," describes new high speed, low temperature dryers for continuous drying processes. Continuous dryers replace batch operation in production of glue and gelatin, dairy products, chemicals, foods, pharmaceuticals, etc.—Surface Combustion Div. of Midland-Ross Corp.

135 Mixed Flow Fan

New MAC mixed flow fan designed for ventilating and air conditioning applications combines space-saving advantages of the axial, with true non-over-loading horsepower curve of the centrifugal, featuring constantly rising, non-peaking pressure curve.—Air Motion Research, Div. Missile Dynamics Corp.

136 Processing, Heat Transfer Equipment

Twenty page bulletin 16-P has product descriptions, specifications for laboratory and production blenders, vacuum tumble dryers, packaged pilot plants, process heat exchangers, new "Solids-Processor," and general purpose solids-flow valve.—The Patterson-Kelley Co., Inc.

137 Tank Suction Heater

New 12 page bulletin 60-J-1 describes "Paracoil" heaters for conditioning fuel oils from tank storage. Design features and operating advantages for above and below ground installations, with tables of dimensions and weights, capacities.—Davis Engineering Div., Tube Reducing Corp.

138 Warm Air for Drying

Bulletin 548 on grain drying contains data covering all sizes of tower dryers. Model C30 and new automatic control panel illustrated. Information on farm and seed dryers given.—Campbell Heating Co.

Dust & Fume Collection

139 Exhaust and Conveyor Tubing

Details on various types of interlocking exhaust tubing and lists of applications, tables of sizes, specifications and weights are given. Conveyor tubing bulletin covers features, specifications, and applications of various types of metal conveyor tubing.—Pennsylvania Flexible Metallic Tubing Co.

140 Exhaust System for Fumes, Smoke

Bulletin 650 automotive R6-60 describes, illustrates and gives complete selection data for overhead and underfloor exhaust system for car, truck and welding fumes. "Swing-O-Way" units for removing diesel and spot welding smoke use a retractable tubing up to 6 in. diameter which permits 180 deg swing range.—Ammerman Co., Inc.

141 Industrial Filter for Critical Jobs

Bulletin 106 describes "Absolute" filter originally developed for removing radio-active materials and now widely used by industry for critical filtering jobs. Guaranteed 99.97 percent efficient on 0.3 micron particles. Light, compact, easily installed without power, flushing water or drain connections.—Cambridge Filter Corp.

142 Industrial Vent Pipe

Twenty page brochure TR-237A tells architects and engineers of industrial plants the cost saving advantage of "Transite" pipe in venting industrial gases, mists, fumes and dusts. Gives sizes, dimensional data on pipe, couplings and many fittings available for laying out venting systems.—Johns-Manville.

143 Light Weight Flexible Tubing

Eighteen page catalog 10-19G, "The Facts About Flexible Tubing," describes complete line of light weight flexible tubing for dust and fume collection applications. Information includes air friction charts and engineering specifications.—Flexible Tubing Corp.

144 Reverse Air Jet Dust Filter

Eight page brochure on new model K "Aeroturn" reverse air jet dust filter describes principle of operation, details all components and new features, explains reverse air jet principle, describes construction and assemblies, contains brief specifications. List of sales offices is included.—Koppers Co., Inc., Metal Products Div.

Electric Heat

145 Electric Furnaces

319 line of electric furnaces which can be easily adapted to complete year 'round climate control have capacities of 62,000 and 82,000 Btu per hr. The latter unit can be de-rated to suit individual heating requirements.—Mueller Climatrol Div. of Worthington Corp.

146 Electric Hot Water Heating Boiler

"Compact" electric hot water heating boiler supplies water at 60 to 250 deg and is completely wired and ready for service connection. In accordance with ASME boiler and pressure vessel code, its output is from 20,000 to 204,000 Btu per hr. Circulator furnished.—Precision Parts Corp.

147 Electric Hot Water Heating Boiler

Electric hot water heating boiler for commercial and industrial installations supplies water at temperatures of 60 to 250 deg and is in accordance with requirements of ASME boiler and pressure vessel code. Capacity of 2½ million Btu per hr.—Precision Parts Corp.

Your comments on this trade literature supplement to Heating, Piping & Air Conditioning will be most welcome, and we invite you to write us. We'd like very much to know if you find this service useful, and how we can improve upon it.

Address your remarks to Trade Literature Supplement, Heating, Piping & Air Conditioning, 6 N. Michigan Ave., Chicago 2, Ill. And thanks for your help.

Fans, Blowers, Ventilators

148 Air-Over Motors

Bulletin describes air-over motors which mount directly in air stream of driven propeller or axial flow fan in cooling towers, exhaust systems, air cooled heat exchangers, condensers. Construction details, performance data and ratings given. Describes how these motors provide totally enclosed protection at a considerable saving for these applications.—Wagner Electric Corp.

149 Air Velocity Meter

Bulletin B-6 presents air velocity meter, an instrument for testing fan and blower discharge and inlet pressures, pressure drop across filters, balancing air conditioning systems, etc. Instrument comes in portable kit form which includes dual purpose manometer, 18 in. stainless steel pitot tube, accessories, metal carrying case.—F. W. Dwyer Mfg. Co.

150 Axial Flow Fans

Bulletin AFF-61 illustrates and describes axial flow fans, arrangement 9, vaneaxial type and arrangement 4, vaneaxial and tubeaxial types. Features include airfoil fan wheels, heavy gauge casings, sealed and pre-lubricated bearings. Capacities at zero static pressure range from 3220 to 72,500 cfm.—L. J. Wing Mfg. Co., Div. of Aero Supply Mfg. Co., Inc.

151 Belt Drive Power Roof Exhausters

Bulletins 60-CK, 60-AK describe "KeyLine" spun aluminum, belt drive, centrifugal and axial exhausters for heavy duty service. Low contour, with motor and drive assembly in separate housing parallel to centrifugal wheel and out of air stream. Automatic belt tightening device, non-overloading, centrifugal wheel are features. Nine sizes, 725 to 27,000 cfm.—Jenn-Air Products Co., Inc.

152 Belted Ventilating Sets

Bulletin 410 describes non-overloading belted ventilating set type BVB in 12 sizes for use in supply or exhaust.—Barry Blower Co.

153 Centrifugal Roof Exhausters

New line of low silhouette extruded aluminum centrifugal roof exhausters featuring straight-line styling to harmonize with new linear concept of modern architecture described in bulletin. Quiet operation, non-overloading horsepower, stable pressure curve featured. Tests in accordance with AMCA bulletin 210, Fig. 3. Complete range of sizes.—Western Engineering & Mfg. Co.

154 Centrifugal Units

"Vent-X-It" direct or belt driven spun aluminum centrifugal units, described in bulletin, offer volume ventilation with streamline styling and are designed for low silhouette buildings. They add a graceful appearance wherever installed and require little or no maintenance.—Octagon Ventilator Mfg. Co.

155 Colored Housings for Roof Fans

Two page bulletin FG-101 describes new fiber glass fan housing in color for "Hyduty" roof exhaust fans. Details on available colors, permanence, maintenance-free installation, sound insualtion, styling, strength, construction and guarantee given. — Davidson Fan Co.

156 Curb for Roof Ventilators

Prefabricated "Insta-Curb" for roof ventilators has all welded, painted steel construction, speeds installation, assures correct mounting. Fiber glass insulation. Base and corner cants protect roofing, eliminate leaks and maintenance problems. Wood top curb for easy ventilator mounting. Comes completely assembled and ready for installation.—Swartwout Fabricators, Inc.

157 Data Sheets for Induction Units

Specifications for all induction units used for heating venting, exhausting and material handling are given in data sheets. Flow factors are indicated for oil, gas, coal and incinerators. Basic specifications in tabular form include sizes 6 to 30 in., recommended vertical installation, horizontal connections, dimensions of each unit, motor performance, blower diameter. — Quick-draft Corp.

158 Direct Drive Power Roof Exhausters

Bulletin 58-B describes CR and AR series centrifugal and axial direct drive power roof exhausters and CW direct drive wall exhauster. Capacities from 170 to 5750 cfm. Exclusive U-spring suspension virtually eliminates vibration noise, is guaranteed for life of fan. Performance and dimensional data, electrical characteristics, curb cap mounting diagrams.—Jenn-Air Products Co., Inc.

159 Direct Drive Pressure Blowers

Bulletin 603 describes complete line of direct drive pressure blowers, specifically designed for the high pressure requirements of industrial combustion, cooling, conveying and process systems. These compact, trouble-free units deliver from 100 to 8200 cfm at pressures ranging from 8 to 32 oz per sq in.—The New York Blower Co.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

160 Exhaust Heads

Bulletin on "Swartwout" cast iron exhaust heads employing principle of centrifugal force (rather than baffles, plates, grids, or screens) to remove water, oil and other impurities from exhaust steam discharging to atmosphere. Dimensions, weights, capacities given. — Crane Co.

161 Exhausters

"Aeromatic" exhausters described in bulletin are for use wherever high velocity expulsion of offensive fumes and positive control is desired. Dissipation of fumes high in the air prevents roof damage and re-entry when fresh air intakes are located on roofs. — Octagon Ventilator Mfg. Co.

162 Fan Selection Guide

New 56 page selection guide bulletin C-104 gives complete engineering data on new line of AMCA rated centrifugal B fans. New backward curve wheels have non-overloading power characteristic over the operating range. Color coded capacity tables, output curves, dimensional drawings, etc. make selection of proper fan easy. —Chicago Blower Corp.

163 Fan Sets

A new line of "Ready Units" — V-belt driven, ready-to-run fan sets — is covered in 36 page catalog 517. These units are for volumes to 25,000 cfm, for static pressures through 2½ in., and for clean air up to 300 F. Dimensions and capacity tables included. — Clarage Fan Co.

164 Fans and Blowers

Fans and blowers are described in bulletin 382. — Campbell Heating Co.

165 Fans for General, Industrial Uses

Bulletin 54 describes a variety of ventilation, air conditioning and exhaust fans for general and industrial uses. — Barry Blower Co.

166 Fans for Quiet Operation

Bulletin 592 describes the "AcoustaFan" which features a "Flow-Nozzle" air foil wheel designed specifically for quiet operation in capacities of from 6000 to 220,000 cfm, static pressures 3 in. wg through 11 in. wg. Quiet zone selection tables make an automatic selection of the quietest possible fan.—The New York Blower Co.

167 General Purpose Fans

Bulletin 602 covers complete line of direct and belt driven packaged fans capable of delivering from 160 to 19,000 cfm at static pressures up to 2 in. Easy to install and maintain, these units are available with weather cover for outdoor installation.—The New York Blower Co.

168 Gravity and Power Roof Ventilators

Gravity ventilators covered in bulletin include rotary, three lines of stationary types, directional, continuous ridge, unit types, hooded models, dampers, power boosters and accessories. Power units offered in axial types including low silhouette spun and vertical exhaust types. — Western Engineering & Mfg. Co.

169 Air Jet

"Hy-V" air jet is used for air quenching and solving production cooling problems. Effectively reduces worker fatigue in radiant heat areas near ovens, furnaces, forges or molten metal. Two styles, stationary mounted or mounted on two-wheel stand for mobility. Available with fan wheels 18 through 30 in diameter. — De Bothezat Fans Div. of American Machine and Metals, Inc.

170 Heavy-Duty Fans

Type AF heavy-duty "Dynafoil" fans, featuring a perfected airfoil blade design, are described in catalog 859. This equipment is especially suited to conduit type air conditioning, mechanical draft, industrial processes, tunnel ventilation, and similar applications. — Clarage Fan Co.

171 High Capacity Power Roof Ventilators

Bulletin DB3-200 describes line of type L-CRF (airfoil) direct drive centrifugal power roof ventilators, specifically designed for high capacity duct and flue exhaust applications. Engineering data includes construction features, dimensions, performances and accessories. Available in 15 sizes delivering up to 27,290 cfm. — Ilg Electric Ventilating Co.

172 Induced Draft Fans

Sixteen page bulletin L-3 on mechanical induced draft fans for boilers describes features and construction, presents dimensional data, tables of recommended sizes (for oil, gas, and coal), and fan rating tables. Ordering and specification information included.—Lehigh Fan & Blower Div. of Fuller Co.

173 Induced Draft Ventilators

Four page bulletin describes "Aero-Foil" induced draft ventilators for positive ventilation regardless of wind direction or velocity. May be used as flue cap. Performance described, capacities at various wind velocities charted, dimensions given. — Triangle Engineering Co.

174 Industrial Fans

Condensed industrial fan catalog 259 gives capacities, sizes and wheels for applications covering air conditioning, heating, fume or high temperature exhausting, dust or material handling, induced or forced draft, roof ventilation, high velocity and general ventilation.—Chicago Blower Corp.

175 Materials Handling Fans

Twenty-eight page bulletin L-5 on type I.E. industrial materials handling fans describes features and construction. Due to unique design, standard wheel is ideal for handling dust-laden

air and gases, and materials of a stringy nature such as paper, shavings, etc. Fan rating tables, dimensions, etc. given.—Lehigh Fan & Blower Div. of Fuller Co.

176 Mixed Flow Fan

New MAC mixed flow fan designed for ventilating and air conditioning applications combines integral economical space-saving advantages of the axial, with true non-overloading horsepower curve of the centrifugal, featuring constantly rising, non-peaking pressure curve. Complete range of sizes, direct or belt driven.—Air Motion Research, Div. Missile Dynamics Corp.

177 Motor Application Guide

Sixteen page application guide bulletin 270B outlines electric motors ranging in size from 1/20 to 400 hp. Includes polyphase, single phase and direct current motors. Factors to consider in motor selection are discussed along with numerous motor selection charts.—Century Electric Co.

178 Multiblade Utility Sets

Bulletin 8314 gives description, ratings and dimensions on complete line of packaged fan units, both direct and belt driven. This versatile line can be used in wide range of commercial and industrial air moving applications. Ratings from 83 to 16,786 cfm, wheel sizes 3 to 36 in. — American-Standard Industrial Div.

179 New Centrifugal Fans

A-104 fan selection guide covers new design 10 airfoil bladed centrifugal fans featuring AMCA certified ratings, quiet performance, slow speeds and wide selection range. Non-overloading power characteristics, available in standard and heavy duty, single and double inlets, ¼ to 30 in. static pressure, classes 1 through 5, capacities 440 to 560,000 cfm. — Chicago Blower Corp.

180 New Centrifugal Roof Ventilators

Bulletin 4104 gives description, selection and dimensions of new line of direct drive centrifugal roof ventilators of spun aluminum construction. These low profile units in 19 basic styles range from 200 to 2788 cfm and provide efficient ventilation for schools, shopping centers, office buildings and many types of industrial buildings. — American-Standard Industrial Div.

181 Power Ventilator

Four page bulletin on power ventilator for small commercial and residential installations describes features and applications, and explains how it can be used to reduce cooling costs. Tabulates data on the ventilators, fans, bases, etc. — Triangle Engineering Co.

182 Power Ventilators

"Air-X-It" propeller type ventilator, either direct or belt driven, described in bulletin, provides volume exhaust or air intake with practically silent operation. Moving parts readily accessible whenever needed. — Octagon Ventilator Mfg. Co.

183 Roof Exhaust Fans

Four page bulletin PC-101 describes new "Pleasing Contour Hyduty" roof exhaust fans. Brochure contains dimension table and diagram, capacity table, cut-away view, typical specification and actual installation photos. — Davidson Fan Co.

184 Roof Exhaust Fans

Four page brochure SS-101 describes new low velocity, high capacity SS roof exhaust fans. Contains dimension table and diagram, capacity table, typical specification and actual installation photos. — Davidson Fan Co.

185 Roof Scuttle

Bulletin RST-60 contains detailed information on construction and operation of easily accessible roof scuttle, plus suggested specifications. Detailed drawing lists individual elements and standard dimensions. Samples of materials, weights and prices included in chart form. — Penn Ventilator Co., Inc.

186 Roof Ventilator Selection

Technical bulletin BSO-60 presents sizing chart that simplifies selection of roof gravity ventilators. Information on fresh air intake and relief vents plus engineering data on accessories and modification included. — Penn Ventilator Co., Inc.

187 Roof Ventilators

New catalog describes 59 new belt and direct drive fiber glass "Fiber-Aire" roof ventilators with 180 to 13,150 cfm capacities. New type air flow guides eliminate internal air shocks and increase efficiency. Available with stainless steel wheels. Bonded fiber glass housings with molded-in skyblue color are virtually indestructible and silent.—Swartwout Fabricators, Inc.

188 Roof and Wall Exhausters

Bulletin 100-60 covers line of spun power and gravity roof and side wall exhausters under the trademark "AirXpeler," and "AirMpeler" line of belt-driven units, "HiBoy" and "LoBoy" units of backward curve centrifugal design, along with fabricated gravity ventilators.—Ammerman Co., Inc.

189 Small Centrifugal Fans

Eight page bulletin DB2-306 describes and illustrates complete and versatile "Util-A-Set" line of small forward curved centrifugal fans consisting of direct connected, belted and portable models for ventilating applications where low pressure, small volume and quiet operation are desirable. Detailed selection data given for each model.—Ilg Electric Ventilating Co.

190 Space Heating with High Ceilings

"Vertiflow" catalog 2659A illustrates and fully describes how to effectively space heat buildings with high ceilings. Sixteen pages include technical data, mounting heights, spread circle diameters, unit capacities of 30 sizes, specifications, and dimensional drawings. Charts, tables and graphs.—Young Radiator Co.

191 Duct Fans

Installed as part of horizontal or vertical ducts, "Bifurcator" fans efficiently exhaust air that is abnormally hot, corrosive, flammable or explosive. Motor is mounted in separate chamber and destructive fumes are bypassed (bifurcated) around it. Cone feature allows removal of motor or fan wheel while fan remains in place. — De Bothezat Fans Div. of American Machine and Metals, Inc.

192 Variable Speed Drives

Complete line of SVS variable speed drives for fans, blowers and ventilators from fractional horsepower through several hundred hp described in bulletin. This line is truly variable as the adjustable sheave does not freeze up from usage. — T. B. Wood's Sons Co.

193 V-Belt Drives

Complete line of "Sure-Grip" V-belts for all drives is described. Sheaves utilize the QD type bushing. — T. B. Wood's Sons Co.

194 V-Belts

"Sure-Grip" V-belts in complete line come in three constructions: standard, super and steel cable, and highest horsepower ratings. New shape "Ultra-V belt" is stocked in three cross-sections in standard lines. These belts, on mating sheaves, offer the ultimate in V-belt drives, reducing size, weight and cost. — T. B. Wood's Sons Co.

195 Ventilating Equipment

Condensed catalog describes ventilating line including propeller fans for low or high pressure, duct fans, tube axial fans, power roof ventilators, spun aluminum axial and centrifugal roof exhauster, relief units and wall louvers and accessories. — Power Line Fan Co.

196 Ventilating and Heating Equipment

Eight page condensed catalog DB7-102 describes major lines of heating and ventilating equipment, including newly designed type BU and FU "Util-A-Sets" and type PF square panel proller fans. Engineering data includes special construction features, economy of design, dimensions and gives range of sizes and capacities. — Ilg Electric Ventilating Co.

197 Ventilator and Skylight

"Lite-'N-Aire" heat valve combination ventilator and skylight is described in four page illustrated folder. High efficiency, low cost ventilator provides quantities of pleasant, natural light whether damper is open or closed. One unit, one roof opening, one installation cost. For industrial, commercial and institutional use.—Swartwout Fabricators, Inc.

198 Utility Exhausters

Bulletin 53 deals with "Junior" type of small direct connected fans for general ventilation service in five sizes and 15 models. — Barry Blower Co.

Fuel Burning, Stacks & Vents, Draft

199 Ash Handling for Smaller Plants

Four page brochure describes new, low-cost "Econo-Ash" system, a pneumatic ash handling system for smaller coal fired plants burning 2 to 10 tons per day. Provides clean, rapid ash disposal with labor savings — features previously available only in more expensive systems designed for larger plants. — The Allen-Sherman-Hoff Co.

200 Atmospheric Gas Burner

Bulletin B8 describes the "Kinetic" gas burner and gives complete information on how to select burner size, automatic operating controls, combustion safeguard and control valves. Charts and diagrams illustrate information. — Webster Engineering, Div. of Midland-Ross Corp.

201 Automatic Rotary Burners

These fully automatic burners are built with metering pump, three-way magnetic oil valve and suction pump to provide sure, smooth automatic starts even after lengthy shutdown. Available in models for firing on oil only, gas only, or combination-oil-and-gas. Nine sizes, 28 to 560 hp. — S. T. Johnson Co.

202 Barometric Draft Control

Twenty page handbook and installation guide for barometric draft control explains why draft must be controlled, where to install a draft control, selecting the right size, how to install, and use of instruments in setting a control. Detailed information on several controls included.—Field Control Div., Conco Engineering Works, Inc.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

203 Boiler-Burner Unit

2500 "Mills" boiler-burner unit for No. 2 oil for medium size buildings such as apartments, garages, motels and stores is designed for minimum maintenance. High capacity internal tankless hot water heaters optional. Unit has electronic controls. — The H. B. Smith Co., Inc.

204 Burners for No. 2 Oil

Two page bulletin 102 on type C-20 "Deluxe" burners for No. 2 fuel oil in capacities from 5 to 33 gph for natural or induced draft operation and 5 to 30 gph for forced draft or "pressurized" operation. Features described and specifications given. — National Airoil Burner Co., Inc.

205 Cast Iron Boiler

640 "Mills" boiler for oil or gas firing describes this very large 100 to 200 hp cast iron sectional boiler for horizontal rotary oil burners or gas burners. Boilers having very low draft loss, can be used with natural draft generated by 55 ft chimneys. — The H. B. Smith Co., Inc.

206 Chimney Cap and Vent Cap

Chimney cap has stainless steel finish which adds unlimited service life. New line of inexpensive vent cowls for gas and oil. Fits all types of vents. Attractive models in galvanized and krinkle aluminum finish. — Walker Mfg. & Sales Corp.

207 Combination Oil and Gas Burners

These burners enable use of either fuel as price and convenience dictate. A flick of the switch makes the complete change-over from one fuel to the other. This switch can be controlled either manually or automatically. Produces real fuel economies. The equipment is available in nine sizes for every heavy-duty need.—S. T. Johnson Co.

208 Combustion Air Heaters

New bulletin FD-800 describes packaged units of removable core coils mounted in a heavy structural frame which cost less to install and maintain. Provides extra advantages in variety of applications. — Buffalo Forge Co.

209 Control of Draft

Specifications and information for architects, engineers and contractors covering industrial heating and processing equipment applications are given in 12 page bulletin. — Field Control Div., Conco Engineering Works, Inc.

210 Data Sheets for Induction Units

Specifications for all induction units used for heating venting, exhausting and material handling are given in data sheets. Flow factors are indicated for oil, gas, coal and incinerators. Basic specifications in tabular form include sizes 6 to 30 in., recommended vertical installation, horizontal connections, dimensions of each unit, motor performance, blower diameter. — Quick-draft Corp.

211 Draft Regulators

A new dual purpose draft control — single acting for solid fuels, double-swing for gas —is described. — Walker Mfg. & Sales Corp.

212 Factory-Built All-Fuel Chimney

Eight page bulletin RD-1 gives application, installation, and specification information on durable, attractive, tile-lined factory-built residential chimney, now available with a metal brick imprint housing, as well as asbestos cement. Included are photographs, drawings, and charts, with product application data for new construction and for remodeling existing construction.—Van-Packer Div. of The Flintkote Co.

213 Forced Draft Burners

Forced draft "Package" burners provide smooth, efficient operation regardless of stack conditions, firebox pressures. Come completely assembled, wired, tested, ready to install. Powered by No. 53 burners in sizes 28 to 560 hp. Models for oil, gas, or combination oil and gas firing. Produce maximum efficiency at minimum fuel cost. —S. T. Johnson Co.

214 Forced Draft Gas Burner

Bulletin B14 gives complete information on seven sizes of "Dynetic" packaged, forced draft gas burners from 800,000 to 3,200,000 Btu/hr. Also covered are special features available to meet local design or code requirements.—Webster Engineering, Div. of Midland-Ross Corp.

215 Fuel Economizers

New catalog describes fuel economizers which eliminate smoke and reduce oil, coal and coke heating expense as much as 25 percent. They produce a hotter fire by preheating secondary intake air up to 400 to 875 F to burn fuel and combustion gases without waste, smoke, soot, carbon deposits.—Farris Combustion Controls.

216 Gas Burners

Catalog A-10 discusses "Blue Line" atmospheric upshot gas burner with distinctive slotted head. On-off, modulating or step firing. Inputs up to 8 million Btu per hr on natural or LP gas. — Gordon & Piatt, Inc.

217 Gas Burners

Catalog H-1A on type H inshot atmospheric burner for horizontal flame applications. Inputs to 15 million Btu per hr. — Gordon & Piatt, Inc.

218 Gas Conversion Burners

"Lo-Blast" power inshot gas conversion burners for efficient gas firing all types of larger boilers and furnaces, in sizes from 700,000 to 20,000,000 Btu input. Available for all gases; fuel saving over atmospheric burners 10 percent or more. Motor and blower provide all

Advertisers in Heating, Piping & Air Conditioning have furnished these descriptions of their catalogs, bulletins, and other helpful data. Copies are available on request.

combustion air, independent of stack draft.—Mid-Continent Metal Products Co.

219 Gas Conversion Burners

"Economite" power type gas conversion burners, used for converting all types of smaller boilers and furnaces to gas firing, range in size up to 700,000 Btu input. Ideal for downdraft units. Positive air supply provides 10 percent fuel saving over atmospheric burners. Inshot gun type design simplifies oil replacement. Quiet operation.—Mid-Continent Metal Products Co.

220 Gas-Oil Burners

Catalogs E-51 and E-61 cover "Turboring" burner for forced, induced or natural draft applications. Inputs to 9 million Btu per hr on gas, light oil or combination gas and oil fuels. — Gordon & Piatt, Inc.

221 Hopper and Bin Feed Stokers

Six page bulletin with complete illustrations and descriptions of industrial, commercial and domestic stokers in 56 models with capacities of from 150 lb per hr through 750 lb per hr. Includes drawings and specification tables.—The Will-Burt Co.

222 Horizontal Rotary Burners

Sixteen page bulletin 50 and specification data sheets cover fully automatic burners with single or dual gas-electric ignition, combination oil-gas burners with single or dual gas-electric ignition and electronic controls, fully automatic and semi-automatic pump type burners. Available in sizes from 4 to 200 gph. Basic manual control pump types included. — Enterprise Burners, Adel Div., General Metals Corp.

223 Incinerator Burner

Compact assembled "Incinomite" power type incinerator burner with capacities of 100,000 to 750,000 Btu can be readily applied to old or new incinerators. Provides positive combustion air to long luminous flame to dry and ignite refuse and eliminate smoke and fumes. Various controls systems available.—Mid-Continent Metal Products Co.

224 Induced Draft Fans

Induced draft "Bifurcator" fans provide controlled draft for boilers and furnaces. Motor speed controllers enable operator to vary draft according to combustion needs. Fan wheel or motor can be removed while fan remains in stack or breeching. Fan wheels 12 to 36 in. for high pressure boilers up to 60,000 lb per hr of steam, low pressure boilers up to 190,000 EDR. — De Bothezat Fans Div. of American Machine and Metals, Inc.

225 Logic of Stoker Heating

Twelve page brochure illustrates and discusses stoker-fed coal heating in schools, public buildings and institutional buildings. Contains comparative cost data, reporting heating costs with competitive fuels in actual, large metropolitan school district.—The Will-Burt Co.

226 Packaged Fire Tube Boiler

Packaged fire tube "Powermaster Positive Flow" steam or hot water boiler described in bulletin 1275. Features include accelerated internal circulation to improve heat absorption efficiency, "Pyroflow" burner system easily convertible in field from or to oil or gas, hinged front and rear covers, optional dryback or wetback construction, quiet operation. — Orr & Sembower, Inc.

227 Pneumatic Ash Handling Data Sheet

Four page data sheet Z1 describes "Ashvac" steam jet pneumatic ash handling system for plants burning 10 or more tons per day. Contains construction, design and operational information on system and components comprising it. Typical installation and alternate equipment arrangements to suit specific plant requirements illustrated. — The Allen-Sherman-Hoff Co.

228 Pressure Atomizing Oil Burner

Four page bulletin describes type C-45 pressure atomizing oil burner listed by Underwriters Laboratories for Nos. 4 and 5 fuel oils. Is a replacement for light oil burners in the range of 5 to 33 gph. Can use light oil without electrical heater in service, changing to Nos. 4 or 5 oil in future.—National Airoil Burner Co., Inc.

229 Pump and Heater Sets for Fuel Oil

Four page booklet gives information and data on packaged fuel oil pump and heater sets for accurate control of temperature and pressure of heavy oils to insure proper atomization and combustion. Single and duplex units, steam or electric drive, that heat to 300 F, pump to 400 psi, and have capacities to 3000 gph covered. — Walter H. Eagan Co., Inc.

230 Saddle Mount for Draft Inducers

New saddle mount simplifies industrial installations of draft inducers. — Walker Mfg. & Sales Corp.

231 School Heating Data

Interim report "Gas Vs. Electric Heating at Shingle Creek School" on a study conducted by the Minneapolis school system, offers revealing data on two identical schools for guidance of architects, engineers and school officials. Offers ways to reduce costs and make operations more efficient.—Industrial and Commercial Gas Section, American Gas Association.

232 Self-Clearing Coal Conveyor

Four page bulletin illustrates and describes new power-reversing coal conveyor. Drawings show typical installations with single or dual dis-

charge, and horizontal cross feed tandem operation.—The Will-Burt Co.

233 Smokestacks

Eight page bulletin IS-49 on UL listed factory-built, low-cost, insulated refractory smokestack for commercial and industrial application to incinerators, boilers, furnaces. Product information, application data, photographs, drawings, engineering and mechanical data. Typical specifications included for models HT and BF.—Van-Packer Div. of The Flintkote Co.

234 Steam Condensate Meter

"Cadillac" condensate rotary meter measures steam condensate in atmospheric or vacuum systems and has high accuracy from rated capacities down to zero. This meter registers to ten million pounds, is inexpensive to maintain, is known for long life and comes in sizes from 250 to 12,000 lb per hr.—Central Station Steam Co.

235 Translucent Gravity Ventilators

Complete 54 page catalog and engineering data 60-1 on "Air-X-Hauster" and "Powair-X-Hauster" gravity and power ventilators. Includes new square, rectangular, low silhouette models with translucent top available, making combination ventilator and skylight; specifications; capacity tables; test data; installation hints; wind velocity tables for U.S.; selection charts; and other data. —The G. C. Breidert Co.

Gaskets & Packing

236 Adhesive Products

Four page catalog contains basic information on a variety of adhesives for bonding high and low density insulation materials to sheet metal ducts; both solvent types and water dispersed adhesive products included. Data on a duct seam sealer for use on high pressure systems is covered in catalog.—Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div.

237 Asbestos Packing, Textiles

Full lines of "Unarco" braided asbestos packings for all pressures, and asbestos textiles, cloth, tape and tubing are described in bulletin. — Union Asbestos & Rubber Co.

Over 750 descriptions of catalogs, bulletins and other data available to you without obligation on request are described in these pages.

238 Asbestos Sheet and Gaskets

Eight page catalog describes single formula material that can be used wherever asbestos sheet gaskets are applicable. Lists over 120 different chemicals with which it can be used with proved safety, and includes a table of sheet sizes carried in stock. Gives prices and dimensions of cut gaskets in various types and sizes.—Durabla Mfg. Co.

239 Sealing Compounds

Twelve page bulletin 7009 on "Titeseal" sealing compounds for many uses, including steam and water lines and connections, boiler and radiator assemblies water systems, oil lines, natural and LP gas fittings, process piping, vacuum pumps, and others. Acts as a sealant, as a gasket, and as a lubricant. Many types. — Radiator Specialty Co.

Hot Water & Steam Equipment

240 Adjustable Temperature Regulators

Bulletin 603 describes how overheating or overcooling is eliminated by new "Leslie-Eventemp" regulators which control temperatures in storage heating and cooling services. The ½ to 4 in. line is single seated and employs thermo elements that renew in moments. Design eliminates major sources of system downtime due to temperature regulation problems. — Leslie Co.

241 Ash Handling for Smaller Plants

Four page brochure describes new, low cost "Econo-Ash" system, a pneumatic ash handling system for smaller coal fired plants burning 2 to 10 tons per day. Provides clean, rapid ash disposal with labor savings — features previously available only in more expensive systems designed for larger plants. — The Allen-Sherman-Hoff Co.

242 Boiler Water Level Controls

New catalog describes standard single, multi-stage, and water column combination controls for hot water and steam boilers from 30 to 1668 lb. Technical data, sketches and dimensions on these safety controls included. Proven magnetic operating principle and unique features provide flexibility in application; excellent reliability with minimum maintenance are features. — Magnetrol, Inc.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

243 Boilers

Type A series boilers available from 5640 to 39,370 sq ft steam, SBI ratings, assure complete burning of coal, oil or gas plus maximum heat absorption, resulting in higher efficiency. Staggered location of boiler tubes and advanced designed crown sheet combine to speed circulation. ASME approved. — Spencer Heater, Lycoming Div., Avco Corp.

244 Boilers

Three-pass C series boilers available from 1075 to 4115 sq ft steam, SBI ratings. Hot gases pass through firebox and two complete banks of fire tubes, afford maximum heat transmission into boiler water. Year 'round hot water service with instantaneous or tank type coils available in wide range of capacities. ASME approved. — Spencer Heater, Lycoming Div., Avco Corp.

245 Cast Iron Gas Boiler

Eight page bulletin, C-297 describes type J gas boiler and gives information on electronic control, dual fuel features, ratings and dimensions. Net ratings from 360,100 to 3,354,000 Btu per hr (14.3 to 129.1 hp).—Weil-McLain Co.

246 Central Air Conditioning

Engineering catalog with illustrative and descriptive information and complete selection data on central plant conditioners, multizone conditioners, sprayed coil units, heating-ventilating units, cooling and heating coils. This catalog is notebook type and is index tabbed for easy use.—Thermal Engineering Corp.

247 Check Valves

New 16 page catalog 162 describes "Streamflow" center guided check valves in sizes 1 through 20 in. for pressures from 125 through 2500 lb. Available in cast iron, cast steel, stainless, bronze, aluminum and other alloys. Features described.—Miller Valve Co., Inc.

248 Circulators

Eight page brochure "So Simple It Has to Be Trouble-Free" describes in detail both models of "Perfecta" circulators. Applications, performance curves and specifications for models 150 and 152 given. — Taco Heaters, Inc.

249 Classroom Heating, Air Conditioning

Bulletin CC-605 provides school heating, cooling and ventilating information and application of "Comfort Curtain" system. Covers research and air distribution, heat gain and loss, heat source — warm air, hot water, steam, electric and heat pump — and air conditioning and controls.—Lennox Industries Inc.

250 Condensation Return Units

Eight page bulletin 114 describes type C condensation return units with capacity range 500 to 150,000 EDR, 10 to 125 psi. Construction features, dimensions, limitations and engineer-architect specifications included. Special features are keyed and locked cast bronze impellers, low NPSH, stainless steel shafts, high efficiency ratings. — Aurora Pump Div., The New York Air Brake Co.

251 Design Procedure for Panel Heating

Booklet entitled "A Simplified Design Procedure for Residential Panel Heating" enables one to determine the size of panel and the water temperature necessary to heat any room in a structure of normal construction.—Revere Copper and Brass Inc.

252 Electric Hot Water Heating Boiler

Electric hot water boiler for commercial and industrial installations supplies water at 60 to 250 deg temperatures and meets requirements of ASME boiler and pressure vessel code. Completely wired and ready for service installation, it has a capacity of 2½ million Btu per hr. — Precision Parts Corp.

253 Fire Tube Boiler

Scotch marine, three-pass, fire tube boiler employs 5 sq ft per boiler hp, is constructed in accordance with ASME and SBI codes. Forced draft design of power rated burner eliminates expensive stacks. — Arkos Mfg. Co.

254 Fuel Oil Heater

New eight page bulletin offers standard, low cost methods in which "Thermo-Film" safety-type fuel oil heaters may be installed. Schematic diagrams give recommended installations for either gravity or pump circulation of boiler water. — Davis Engineering Div., Tube Reducing Corp.

255 Gas Boiler

Bulletin describes completely packaged or partially assembled gas boilers for forced hot water, gravity or steam with net ratings from 38,300 to 172,500 Btu per hr. Information on dual fuel, tankless heater capacities, ratings, and dimensions are given.—Weil-McLain Co.

256 Gas Fired Water Heating Guide

Guide (entitled "Enough Hot Water . . . Hot Enough") to sizing, selection, installation of gas fired water heating systems for restaurants and cafeterias. Discusses need for ample quantities of 180 and 140 F water; types of dishwashing equipment described, including arrangements and sizes of water heating apparatus. Information on water and gas piping, venting, clearances.—Industrial and Commercial Gas Section, American Gas Association.

257 Heat Exchange Equipment

Bulletin 6 lists and describes heat exchange equipment such as storage water heaters, instantaneous water heaters and convertors, condensate coolers, dishwasher booster heaters, fuel oil and suction oil heaters, and a specially prepared cement lining used to factory line storage water heaters and tanks. — The Patterson-Kelley Co.

258 Heating and Cooling Products

New 26 page "Hydro-flo" products catalog GC-1259A gives complete information about booster and universal pumps, relief and reducing valves, "Monoflo" and "Airtrol" fittings, water heaters and other hydronic specialty equipment.—Bell & Gossett Co.

259 Heating Specialties

Catalog 76-H shows complete line of valves, traps and vents, and includes capacity charts and roughing-in dimensions.—Marsh Instrument Co., Div. of Colorado Oil and Gas Corp.

260 Heating, Ventilating, Air Conditioning

Four page bulletin 1500 gives information on heating, ventilating and air conditioning equipment. Featured are 220 to 600 cfm air conditioning units; seven types of convectors; "Central-aire" air handling units; vertical and horizontal unit heaters from 27,100 to 555,000 Btu; and cabinet unit heaters from 375 to 1630 cfm; 25,100 to 124,800 Btu. — Airtherm Mfg. Co.

261 High Temperature Water Generators

Advantages of "International-LaMont" high temperature water generators are described in new 16 page bulletin 1600. Engineering data section gives factual comparison between HTW and high pressure steam systems along with pertinent cost considerations. Typical pressurization and pumping arrangements are discussed and illustrated. —The International Boiler Works Co.

262 Hot Water Boilers

Hot water boilers standardly furnished ASME 125 psi, 250 deg, and designed for all types of closed circuit hot water systems are also available for high temperature water application. Gas, oil or gas/oil fired, 126,000 to 5,000,000 Btu, steel water tube design.—Sid E. Parker Boiler Mfg. Co., Inc.

263 Hot Water Heating Boiler

"Multi-Temp" hot water heating boiler, which represents a new concept in the use of gas for commercial and industrial installations, is described in bulletin. Sixteen sizes with a capacity range from 300,000 to 3,600,000 Btu per hr input. Provides "true" input modulation by employing a multiple of units each equipped with its own set of controls.—Hydrotherm, Inc.

264 Hot Water Heating Boilers

Bulletin describes hot water heating boiler of all cast iron construction, 11 sizes with a capacity range from 50,000 to 300,000 Btu per hr. A quality product, especially engineered for gas fired systems. Requires minimum installation space; is efficient in operation; and is competitively priced. —Hydrotherm, Inc.

265 Hot Water Packaged Boilers

Bulletin describes gas fired, cast iron packaged boiler, equipped with factory piped and wired accessories plus positive built in air elimination system. Assembly includes thermostat, dual aquastat, pressure reducing (fill) valve, diaphragm expansion tank, circulator, boiler dip tube, automatic float type air vent, self-energizing control circuit, relief valve, vertical draft hood.—Hydrotherm, Inc.

266 Hot Water and Steam Boilers

1961 catalog includes broad line of gas and oil hot water and steam boilers, gas and oil furnaces, gas unit heaters, domestic and industrial gas conversion burners, and air conditioning equipment. — Roberts-Gordon Appliance Corp.

267 How Radiant Panel Heating Works

Booklet entitled "Radiant Panel Heating—Nature's Own Comfort System" explains how radiant panel heating works and how it compares with other heating systems in comfort, reliability, performance and economy.—Revere Copper and Brass Inc.

268 Hydronic Heating Catalog

Hydronic heating ratings, data, and dimensions catalog provides information on design and construction of equipment for residential and commercial applications. Included are gas and oil fired cast iron boilers; gas and oil fired conversion burners; nonferrous and cast iron baseboard heating panels and wall-mounted convectors, and cast iron radiators. — American-Standard, Plumbing & Heating Div.

269 Hydronic Heating Products

Catalog J-99 covers line of hydronic products for residential and commercial installations. Circulators, pumps, valves, vents and other products and accessories covered in detail. — Taco Heaters, Inc.

270 Indirect Hot Water Boilers

All steel water tube boiler with built in copper heat exchanger with capacities of from 2640 to 1,152,000 Btu per hr is specifically designed to furnish volume domestic hot water, 254 to 1106 gal per hr, 110 deg rise, and for heating swimming pools.—Sid E. Parker Boiler Mfg. Co., Inc.

271 Industrial Thermometers

Bulletin 59-A covers industrial thermometers, available in six standard forms, which offer red-reading mercury tubing with front magnifying lens for greatest visibility. Die cast black aluminum case assures a dust-tight, moisture-tight, rattleproof frame. Choice of 7 or 9 in. sizes in ranges of minus 40 to 1150 F or equivalent in centigrade. — Tagliabue Div., Marshalltown Mfg. Inc.

272 Low Waterline Boilers

LW low waterline boilers available from 2490 to 39,370 sq ft steam, SBI ratings, ASME approved. Unique divided design permits entry through narrow openings; overall height about 25 percent less than conventional boilers. Two water-tight

sections can be moved in separately, yet require no welding for installation and assembly. — Spencer Heater, Lycoming Div., Avco Corp.

273 Packaged Automatic Boilers

Bulletin BE400 provides output, fuel, dimension data on "Continental" packaged automatic steam and hot water boilers. Exclusive spinning-gas combustion that increases heat transfer illustrated. Guaranteed stack temperature and efficiency, reserve capacity for future needs, burner efficiency data, automatic safety controls, accessibility features, discussed. Shows how two-pass construction assures efficiency, compactness. —Boiler Engineering & Supply Co., Inc.

274 Packaged Boiler

New 18 page catalog AA-2-7-60 describes model AA packaged boiler available in 18 sizes, 20 through 600 hp, design pressures 15 to 250 lb. Advantages of the time-proven, three-pass concentric tube layout are given. — Ames Iron Works, Inc.

275 Packaged Boiler

Automatic three-pass packaged boilers with capacities from 30 to 300 hp are featured in comprehensive catalog. Units available for operation on gas, oil or combination gas/oil with exclusive "Viscomatic" controlled air atomized firing. Ratings, dimensions and other data provided. — Ray Burner Co.

276 Packaged Boiler Installations

Four page bulletin GB-1 shows typical "Amesteam" generator installations. Testimonial letters offer proof that packaged boiler will reduce boiler room costs. A well-known users' list is also available. — Ames Iron Works, Inc.

277 Packaged Boilers

Bulletin 4 provides dimension data, capacities, and SBI ratings on "The Highlander" boiler-burner unit, built in sizes from 24 to 463 bph for both high and low pressure steam or hot water. Fired by air atomizing "Hev-E-Oil" burners and "Hev-E-Duty" gas or gas/oil combination burners. — Industrial Combustion Inc.

278 Packaged Boilers

Twelve page catalog describes type AS packaged water tube boilers for capacities from 4000 to 21,000 lb per hr of steam. Complete packages with rotary burners, integrated controls, soot blowers, refractory, and insulation, these units also have quiet rear-mounted draft fan which provides air cooling of furnace floor. — Superior Combustion Industries, Inc.

279 Packaged Boilers

New series of "Webco-Ray" completely automatic forced draft packaged boilers with capacity range of 10 to 125 hp, available for light oil, natural gas, combination gas-light oil operation. Complete operating and programming type flame safeguard controls, circuit breakers, standard in enclosed cabinet. — Western Boiler Co.

FOR YOUR CONVENIENCE

Use the handy postage-paid reply card on pages 2-59 and 2-60 to request your copies of the trade literature reviewed here.

280 Packaged Boilers

"Webco-Ray" automatic, three-pass packaged boilers for heating, power and process steam are featured along with ratings, data, dimensions, other installation data. Units available for gas, oil or combination gas-oil firing. Capacities range from 10 to 600 boiler hp. — Western Boiler Co.

281 Packaged Coal-Fired Boilers

The full line of "Coal-Pak Automatic" packaged unit boilers for burning low cost bituminous coal are described in 10 page bulletin 1100. Combustion controls as well as automatic coal feed and ash removal systems for rapidly following changing load demands are described. Units are available for low or high pressure service in sizes from 71.6 to 300 hp.—The International Boiler Works Co.

282 Packaged Fire Tube Boiler

Packaged fire tube "Powermaster Positive Flow" steam or hot water boiler described in bulletin 1275. Features include accelerated internal circulation to improve heat absorption efficiency, "Pyroflow" burner system easily convertible in field from or to oil or gas, hinged front and rear covers, optional dryback or wetback construction, quiet operation. — Orr & Sembower, Inc.

283 Packaged Hot Water Boiler

Type CC packaged boilers designed for hot water operations and for capacities from 670,000 to 11,720,000 Btu per hr are described in this catalog. Burning gas, oil, or both, is equipped with a newly developed venturi action mixing tube which overcomes the problems developing from improper boiler circulation.—Superior Combustion Industries, Inc.

284 Packaged Steam Boiler

Type CC packaged steam boilers for capacities from 20 to 350 bhp are described in this catalog. A completely packaged unit which will burn gas, oil, or both, it combines simple installation with high efficiencies and operating economy. Although designed for limited space conditions, it makes no concession to quality.—Superior Combustion Industries, Inc.

285 Packaged Steam Generator

Four page bulletin AA-3-860 shows typical model AA "Amesteam" generator packaged boiler available in 18 sizes, 20 to 600 hp, design pres-

sures 15 to 250 lb. Included is a well-known users' list, typical ratings, and longitudinal section through generator. — Ames Iron Works, Inc.

286 Packaged Water Tube Boilers

Two complete lines of low and high pressure, forced draft water tube package boilers are described in bulletin 1400. The "Compak" series of fire-tested units for oil and/or gas is offered in 22 sizes ranging from 12 through 750 hp. Engineering specifications are included.—The International Boiler Works Co.

287 Pressure Atomizing Oil Burner

Four page bulletin describes type C-45 pressure atomizing oil burner listed by Underwriters Laboratories for Nos. 4 and 5 fuel oils. Is a replacement for light oil burners in the range of 5 to 33 gph. Can use light oil without electrical heater in service, changing to Nos. 4 or 5 oil in future.—National Airoil Burner Co., Inc.

288 Radiant Baseboard Installation Guide

Twenty-four page installation guide featuring models 7A and 9A "Base-Ray" cast iron radiant baseboards. Shows, for the first time, new damper and series loop installation. — Burnham Corp.

289 Remote Operation of Valves

For those concerned with valves and piping, bulletin sheet details adjustable sprocket rim with chain guide, a simple device for remote operation of overhead or otherwise out-of-reach valves. Gives price list, ordering directions and cites accident reduction, waste prevention and simplification of piping layout.—Babbitt Steam Specialty Co.

290 Safety Controls for H.W. Heating Boilers

Engineering information in easy-to-follow form, that tells why safety devices are needed on hot water space heating boilers, which ones to use, and how to select them is given in bulletin P-30C. Liberally illustrated with drawings and diagrams.—McDonnell & Miller, Inc.

291 Safety and Relief Valves

Bulletin 660 illustrates and describes safety relief valves. Safety valves are approved by American Society of Mechanical Engineers suitable for steam and air service with relief valves suitable for liquid service. Valves furnished in either bronze or cast iron body with screwed or flanged connections.—O. C. Keckley Co.

WHEN USING REPLY CARD

When you use the reply card on pages 2-59 and 2-60 to request the literature you want, please circle clearly the corresponding item number on the card for each catalog or bulletin to be sent to you.

The item number is the big number at the left of the title for each item. For example, in the item immediately above, the number to circle on the reply card would be 291.

292 Suction Head Compensator

New, patented chamber which is installed at the suction side of pump contains a reservoir of water and compressed air which acts as a cushion smoothing out pulsations, and eliminates surges due to increases or decreases in the pressure. —Cobra Pipe Supply & Coil Co.

293 Steam Boilers

Steam boilers available in gas, oil or combination gas/oil fired for high or low pressure application are furnished fully packaged with all controls wired ready for connection to utilities. Steel water tube design, 1½ to 150 hp.—Sid E. Parker Boiler Mfg. Co., Inc.

294 Steam Condensate Meter

"Cadillac" condensate rotary meter measures steam condensate in atmospheric or vacuum systems and has high accuracy from rated capacities down to zero. This meter registers to ten million pounds, is inexpensive to maintain, is known for long life and comes in sizes from 250 to 12,000 lb per hr.—Central Station Steam Co.

295 Steam Converters

File No. 1460 describes new line of SC steam converters for heating radiation water with steam and commonly applied for heating water for office space in industrial buildings. Includes specifications, operating data, leaving water temperature tables, piping. — Dunham-Bush, Inc.

296 Storage Water Heaters

Catalog 19 describes storage water heaters, capacities, dimensions, material thicknesses for vertical and horizontal heaters of steel, copper silicon, copper lined, cement lined, metal clad. Conversion tables, information on fixture capacities and heating elements included. Data on proper shell placing and location of standard tappings and connections. — The Patterson-Kelley Co.

297 Tank Heaters

Booklet TH-160 on indirect type instantaneous water heaters, their application, selection and installation is a help to those concerned with the problem of furnishing hot water for large commercial, industrial, or institutional buildings.—Bell & Gossett Co.

298 Water Tube Boiler

Bulletin 586-A (12 pages) describes line of fully modulating (4 to 1 turndown) "Modulatic" water tube boilers. Covers compact models in size range from 10 to 160 bhp (334,000 to 5,356,000 Btu per hr.) Explains principle of operation, tells how compactness and reliability are obtained.—Vapor Heating Corp.

299 Zone Valves

Four page brochure, "Matched to Modern Comfort," describes operation and applications of new zone valve. Lists specifications and dimensions. — Taco Heaters, Inc.

Humidification, Dehumidification & Evaporative Coolers

300 Air Cooled Condensers

Catalog 384 provides information on "Turbaire" air cooled condensers for air conditioning and refrigeration systems. Details on capacities, dimensions, weights, coil and fan data included for all 19 models. These high efficiency, waterless condensers have capacities from 3 to 100 tons. — Acme Industries, Inc.

301 Air Sterilizing Systems

Twenty page report, "Air Hygiene for Hospitals," discusses the problem of hospital infection and the findings of the Research Foundation, University of Toledo, on the removal of airborne bacteria. Included are charts and illustrations explaining the application of "Kathabar" air sterilizing systems for hospitals.—Surface Combustion Div. of Midland-Ross Corp.

302 Air Washers

"Capillary" air washers, basic to many installations where air is required at controlled conditions, described in section 10. Evaporative cooling minimizes refrigeration needs. Humidification, dehumidification, cleaning, scrubbing gases and fumes also functions of these systems. Refrigeration may be incorporated or added later. "Capillary" cell features high saturation efficiency, low resistance.—Air & Refrigeration Corp.

303 Central Air Conditioning

Engineering catalog with illustrative and descriptive information and complete selection data on central plant conditioners, multizone conditioners, sprayed coil units, heating-ventilating units, cooling and heating coils. This catalog is notebook type and is index tabbed for easy and quick use.—Thermal Engineering Corp.

304 Duct Type Humidification Equipment

Designed for installation in existing or planned duct circulating systems, standard duct type humidifiers described in this catalog atomize from 3 to 24 lb per hr of water vapor. The catalog offers full engineering information, plus application and usage data.—Walton Laboratories, Inc.

305 Electric Humidifier

Type 50-810 new and improved electric humidifier can evaporate 28 qt per day of moisture at maximum settings. Water pan assembly is entirely within furnace plenum or duct system. All water is evaporated in direct path of air stream. — Mueller Climatrol Div. of Worthington Corp.

306 Humidification

Complete data on air-controlled and electrically-controlled unit steam humidifiers for duct or area installations is given in booklet on humidification for profit. Describes problems caused by winter-time dry air and effect on human comfort, as well as on hygroscopic materials. Contains condensed data on humidifier selection, sizing, location, installation.—Armstrong Machine Works.

307 Humidification

Bulletin is designed to assist architects, engineers and contractors in technical aspects of commercial and industrial humidification. Includes estimating the capacity, sizing and selecting equipment. This bulletin also covers the humidification requirements of more than 70 industrial applications.—Walton Laboratories, Inc.

308 Industrial Spray Nozzles

Twenty page catalog I covers general industrial spray nozzles for all types of spraying applications — humidifying, gas scrubbing, wax coating, chemical processing, cooling towers, spray drying, re-cooling, etc.—Monarch Mfg. Works, Inc.

309 Moisture Eliminator Blades

"Soplasco" moisture eliminator blades produced in SP009 modified polystyrene and SP010 polyvinyl chloride formulations for removal of discrete moisture from industrial air conditioning systems, are manufactured in types from three bend sections up to six bend sections. Corrosion resistance, ease of cleaning, economy of parts make them efficient, economical. — Southern Plastics Co.

310 Space Type Humidification Equipment

Catalog covers standard space type atomizing humidifiers, together with application and engineering information for ductless installations. Self-contained humidity stations in several sizes generate from 1 to 24 lb per hr of water vapor. —Walton Laboratories, Inc.

This trade literature supplement to Heating, Piping & Air Conditioning describes catalogs, bulletins, and other data available, without obligation, to readers on request.

Each month, regular editorial departments in Heating, Piping & Air Conditioning are devoted to Equipment Developments and to Recent Trade Literature announced by all manufacturers serving the field of heating, piping, and air conditioning.

Infra-Red Heat

311 Gas Fired Supplemental Heat

Four page folder describes high capacity, infra-red, gas fired, floor model, movable gas heater designed for spot or supplemental heat in hard-to-heat places. Specifications are given. — Space-Ray Corp.

312 Infra-Red Comfort Heating

Booklet gives informtion on high intensity infra-red comfort heating for commercial or industrial buildings, using overhead, gas fired, infra-red heaters. Advantages of this type of heating for particular applications given. — Space-Ray Corp.

313 Overhead Gas Heater

Four page folder describes infra-red overhead gas heater, giving specifications. Heater is designed to give zone or complete comfort heating. — Space-Ray Corp.

Insulation (& Sun Heat Control)

314 Adhesives for Duct Insulation

New catalog lists seven general purpose and special adhesives for fast, permanent bonding of light and medium density insulation to ducts. Properties include fire retardance; resistance to heat, cold, water and humidity; long tack range; high strength and wet strength.—St. Clair Rubber Co.

315 Adhesives for Insulation

Four page catalog contains basic information on a variety of adhesives for bonding high and low density insulation materials to sheet metal ducts; both solvent types and water dispersed adhesive products included. Data on a duct seam sealer for use on high pressure systems is covered.—Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div.

316 Duct Insulation

Duct insulation made of long textile type glass fibers for thermal or acoustical control described and illustrated in 8 page catalog ULD-859. Includes application specifications, data on characteristics of duct liners, thermal efficiencies, sound absorption data. — Gustin-Bacon Mfg. Co.

317 Duct Insulation

Twenty page AIA literature describing full line of duct insulation and liners gives product description, specifications and application instructions.—Owens-Corning Fiberglas Corp.

318 Equipment Insulation

Sixteen page AIA literature describes full line of equipment insulations with product description, specifications and application instructions.—Owens-Corning Fiberglas Corp.

319 Expanded, Expandable Polystyrene

New eight page booklet describes "Uni-Crest" expanded and expandable polystyrene and illustrates applications of regular and self-extinguishing types to construction, refrigeration, air conditioning, flotation and packaging fields. Pre-expansion and molding of the material is discussed. — Uni-Crest Div., United Cork Companies.

320 Fiber Glass Duct Insulation

Six page form IN-285A describes properties, characteristics and product forms and explains and illustrates application methods for "Microlite" fiber glass duct insulation. Tables show thermal performance, recommended thicknesses, types of available vapor barriers, fire hazard rating and compliance with federal specifications.—Johns-Manville.

321 Fiber Glass Duct Liner

Eight page form No. IN-302A describes function of dual density design, acoustical and thermal properties, product characteristics and application methods including tables on thermal conductivity, noise reduction and surface friction coefficients, fire hazard rating, sizes and packaging of "Micro-Bar" fiber glass duct liner. Drawings show construction of integral nosings and shiplap joints.—Johns-Manville.

322 Fiber Glass Pipe Insulation

Eight page form No. IN-237A explains construction and application features and includes a guide to specifications for application and finishing for various types of service for "Micro-Lok" fiber glass pipe insulation. Also given are descriptions of available jacket materials, thermal conductivity curve, and table of sizes.—Johns-Manville.

323 Flame Resistant Vapor Barrier Line

Product data folder on "Pyro-Kure" flame resistant vapor barrier line includes actual samples, UL fire hazard classifications, physical property data on all grades, results of testing by various universties and laboratories, as well as typical application suggestions.—American Sisalkraft.

324 Foamed Plastic Pipe Insulation

Four page bulletin IN-213A describes "Aerotube" foamed plastic pipe insulation and gives data on installation for various types of pipe and tubing, as well as tables of recommended thicknesses and thermal and physical properties. —Johns-Manville.

325 Functional Ceiling

Twelve page bulletin 138 describes completely self-contained suspended ceiling offering radiant panel heating, cooling and acoustic control. — Burgess-Manning Co., Architectural Products Div.

326 Insulated Enclosures

Catalog section 50 describes enclosures of "A& R" factory insulated panels, designed to suit the conditions of application, indoor or outdoor use, amount of insulation and ready access. Factory test assembly and match-marking facilitate job site savings.—Air & Refrigeration Corp.

327 Insulation for Hot and Cold Piping

Four page booklet FI-108 introduces "Foamglas Stay-Dry" insulation for commercial applications from 35 to 350 F. Contains photos illustrating product features, application specification, suggested thicknesses, available sizes and thicknesses for iron pipe and copper tubing, and a list of its physical properties.—Pittsburgh Corning Corp.

328 Insulation and Refractory

Twelve page booklet FI-106 lists benefits of "Foamglas" insulation, shapes and thicknesses, outlines application procedure such as pipe insulation(-450 to +800 F), with application photos and list of accessory materials. Also contains information and properties on "Foamsil" acid-resistant insulating refractory of 99 percent pure fused silica glass.—Pittsburgh Corning Corp.

329 Insulating and Refractory Material

Four page booklet FS-1 contains background data on "Foamsil" insulating and refractory material, along with photos of product features and a brief case history. Also gives available sizes and shapes of this 99 percent pure fused silica material along with its physical characteristics. —Pittsburgh Corning Corp.

330 Insulation Tubing for Copper Lines

Properties, test data and specifications applicable to "Cell-Tite" insulation tubing for copper lines are given in eight page bulletin.— B. F. Goodrich Sponge Products.

331 Pipe Insulation

Pipe insulation composed of extremely fine diameter blown glass fibers and designed to snap quickly in place over pipe is described in 8 page catalog SO-859. Explains how glass fibers, tightly bonded and molded into one piece sections, are applied to a variety of surfaces. Includes sample specifications and packaging characteristics. — Gustin-Bacon Mfg. Co.

332 Pipe Insulation

Thirty-two page AIA literature describes full line of pipe insulations with product description, specifications, and application instructions.— Owens-Corning Fiberglas Corp.

333 Pipe Insulation

Bulletin on "Amosite" asbestos fiber, which makes tough, durable pipe insulation for temperatures to 1200 F, is particularly suitable for boiler rooms and main steam lines. — Union Asbestos & Rubber Co.

334 Pour Type Underground Insulation

Comprehensive 44 page booklet describes "Insul-Fil" pour type underground insulation and its application. Featured are engineering drawings, heat loss determination graphs and other information designed to guide the engineer and contractor to an economical and trouble free installation.—Miracle Adhesives Corp.

335 Preformed Pipe Insulation

Bulletin 37-D illustrates preformed pipe insulation that stops condensation and sweating. Data shows specifications, low K factor, light weight, long life, closed-cell construction and installation methods on new or installed dual temperature pipes and tubes.—Presstite Div., American-Marietta Co.

336 Rigid Foam Insulation

U-200 polyurethane rigid foam insulation for temperatures from minus 300 to plus 220 deg described in bulletin. Outstanding efficiency, easy to apply. For cold water lines and low pressure heat lines. Weight approximately 2.3 lb per cu ft with K factor of 0.14 at 70 F. — Union Asbestos & Rubber Co.

337 Stud Welder for Insulation Pins

Bulletin describes inexpensive resistance type "PinSpotter" stud welder designed specifically to weld pins on ducts for mechanical fastening of insulation. The 110 volt model is self-contained and is suspended over the work area. The 220 volt unit has a "gun" connected to unit by 5 ft cable assembly.—Duro Dyne Corp.

338 System for Installing Insulation

Four page folder G9-19 shows portable welding units, "Insul-Pins" and "Insul-Clips," plus step-by-step explanation of method of installing blanket insulation to ductwork rapidly and permanently with "Gramweld" equipment. No special

wiring, flux, ferrules or compressed air required; patented stud tip prevents burn-through or distortion of ductwork. — Omark Industries, Inc.

339 Underground Pipe Insulation

Brochure on "Witcolite" granulated, resilient adhesive material which forms three zones of insulation for underground hot or cold pipes and provides corrosion and water resistance. Cured anti-corrosive zone, air pocketed sintered zone, and granular zone provide maximum thermal insulation. Describes advantages, gives installation instructions, typical properties, technical information.—Witco Chemical Co., Inc.

Motors, Bearings & Drives

340 Ball Bearing Units

Catalog 454 gives technical and engineering data, specifications, diagrams, illustrations and typical applications of "Sealmaster" line of ball bearings. Features are permanent sealing, pre-lubricating, self-aligning and zone hardening. — Stephens-Adamson Mfg. Co.

341 Close Coupled Motors

Bulletin MU-244 describes polyphase squirrel cage motors, 1 hp and larger with NEMA 'C' faceplates for close coupled centrifugal pump applications. Construction details, ratings, principal mounting dimensions and enclosure types available are listed, along with other mechanical and electrical features of the motors.—Wagner Electric Corp.

342 Electric Motors

Bulletin C-404 describes a-c motors from 1 to 800 hp; wound rotor motors 3 to 600 hp; and totally enclosed and explosionproof motors 1 to 200 hp. Includes information on various electrical and mechanical modifications, gear motors, d-c motors, MG sets and variable speed drives. — General Dynamics Corp., Electro Dynamic Div.

343 Flexible Couplings

New manual 502 describes latest design flexible couplings embodying "Amerigear" exclusive fully-crowned tooth. Unit is one piece, continuous sleeve construction. An ordinary screwdriver will engage or disengage the snap rings which keep coupling intact during operation. — Zurn Industries, Inc., Mechanical Power Transmission Div.

344 Fractional Horsepower Motors

Bulletin B-2514 covers high quality performance of new "Duty Master" fractional horsepower motor which offers maximum protection in enclosure and 33 percent weight reduction. Specifies frame sizes, FPH capacitor-start, mountings and facts about construction and advantages. 1/20 through ¾ hp. — Reliance Electric & Engineering Co.

345 Motor Application Guide

Sixteen page application guide bulletin 270B outlines electric motors ranging in size from 1/20 to 400 hp. Includes polyphase, single phase and direct current motors. Factors to consider in motor selection are discussed along with numerous motor selection charts.—Century Electric Co.

346 Motor Selector Bulletin

Eight page motor selector bulletin is designed to save time in choosing the right fractional and integral horsepower motors for general and special purposes. Units are illustrated and ratings and characteristics are tabulated. — Howell Electric Motors Co.

347 Motor Selector Bulletin

Motor selector bulletin B-2103-4 offers tables on dimensions, modifications for frame sizes and design classes. Totally-protected motors meet needs of most applications, but manufacturer also builds a wide variety of special motors to meet particular customer requirements. — Reliance Electric & Engineering Co.

348 Motorized Drives

Motorized drives bulletin MD-1, six pages, describes features and tabulates selection data for gear motors and "Line-O-Drives." Available in open drip-proof, totally enclosed, and explosion-proof enclosures. — Howell Electric Motors Co.

349 Motors

Condensed full-line catalog FL-2 contains photographs, application and performace information, electrical and mechanical types available, enclosures for single and polphase a-c motors in size range 1/6 through 300 hp.—Howell Electric Motors Co.

350 Motors for Industrial Uses

Bulletin B-2515 describes a-c "Duty Master" motor for industrial applications. Enclosures and improvements in the redesigned 1 to 1000 hp line given. Photos of each production step and important customer benefits included. — Reliance Electric & Engineering Co.

351 Roller Chain and Sprockets

Fifty-six page bulletin A691 offers roller chain and taper-lock sprockets in wide range of types and sizes including single and double strand, heavy series, double pitch conveyor and drive. — Dodge Mfg. Corp.

352 Speed Reducers

Sixty page bulletin 60 describes broad line of "Torque-Arm" speed reducers, including models for right angle drive and screw conveyors. Shaft mounted units available in large range of sizes and horsepowers with output speeds from 10 to 400 rpm in single and double reduction series. — Dodge Mfg. Corp.

353 Totally Enclosed Motors

Bulletin B-030 describes totally enclosed motors, both non-ventilated and fan cooled as well as explosionproof. Construction features such as winding, testing, bearing testing, dynamic balancing of rotors and laboratory tests on enclosures which assure top quality, described. — General Dynamics Corp., Electro Dynamic Div.

To simplify your requests for copies of the trade literature that is reviewed here, use the convenient postage-paid card on pages 2-59 and 2-60. Heating, Piping & Air Conditioning will advise the manufacturers.

354 V-Belt Drive

Single, endless V-ribbed belt of R/M "Poly-V" drive runs smoothly over grooved sheaves to deliver more power in the same space with reliability. Eliminates excessive vibration, noise, belt and sheave wear, and length matching problems; drive life is much longer and two cross sections fulfill every heavy duty requirement for industrial air conditioning blowers, pumps and compressors.—Raybestos-Manhattan, Inc., Manhattan Rubber Div.

355 V-Belts

New R/M CX molded V-belt is fully molded, fully jacketed notched V-belt ideally suited for light air conditioning units requiring single belts and where vibration and noise cannot be tolerated. No cut notches, no flexcracking, no separation of belt components, high flexibility for extremely small diameter sheaves, increased drive life. — Raybestos-Manhattan, Inc., Manhattan Rubber Div.

Odor Control, Air Freshening

356 Dust and Odor Filter Frame

Product data sheet 131 illustrates new "Aerosolve"-charcoal filter frame specially designed to simplify installation and servicing of the two types of filters. Available for charcoal filter of user's choice or as complete packaged unit. Information on dimensions, efficiencies and pressure drops is included.—Cambridge Filter Corp.

357 Purification Equipment

Bulletin 108A describes and illustrates "Dorex" activated carbon air purification equipment, C cells and H canisters and gives data on equipment selection, installation and application. Included is information on replacement service and discussions of activated carbon and conditions for proper purification.—Connor Engineering Corp.

358 Room Air Cleaner

Distinctive new air cleaning device originally manufactured to reduce airborne bacteria in hospitals is now available with new triple filters and full-power pack for homes, business and industry where air cleanliness is a desirable hygienic precaution.—Fram Aire Co., Div. of Fram Corp.

Parts, Clamps, Anchors, Bolts, Screws, Etc.

359 Drill Anchors

"Bulldog" drill/anchors anchor anything permanently and are approved by Underwriters' Laboratories and Factory Mutual Insurance Companies. Fireproof, vibration proof and corrosion resistant (double plated). "Reverse-Pitch" ridges assure holding powers up to 17,800 lb. Sizes from 3/16 through 7/8 in. — Distributor Sales Div., Gregory Industries, Inc.

360 Electrolytic Zinc Coated Steel Sheets

"Weirzin" electrolytic, zinc coated sheet produced by modern and advanced electroplating methods. Has uniform coating which offers tangible advantages in fabrication to assure end product of long life, utility. — Weirton Steel Co.

361 Electronic Packaging of Fasteners

"Fasten-Pak" electronic packaging works in one operation which counts assembly materials, fills, seals and prints four lines of copy on kraft opaque or translucent material, identifying packaged items. Excellent for KD and installation products using screws, nuts, bolts, washers, etc. Packages fasteners faster and better, saves time and money. — Mid-Continent Screw Products Co.

362 Four-Way Fastening Tool

"Nelson" H-D 100 is a new four-way fastening tool designed for setting specially heat-treated hammer pins and studs in concrete or steel. Can also be used for setting drill/anchors, for drilling

holes with standard masonry drills, and ideal for maintenance men and tradesmen. — Distributor Sales Div., Gregory Industries, Inc.

363 Metal Framing Handbook

Catalog handbook 710 on metal framing construction and maintenance contains information for the use of product in framing, supporting and attachment applications in the heating, piping and air conditioning field.—Unistrut Products Co.

364 Powder Actuated Tool Catalog

Eight page catalog 8-29R describes and illustrates full line of "Drive-It" tools, drivepins, couplings and special guards and gives applications for each drivepin and tool. Tools use cartridges to drive hardened steel drivepins for fastening to concrete or steel, and for fastening ductwork to concrete ceilings, walls. — Omark Industries, Inc.

• *Be sure to include your name and address when you use the reply card to request copies of these bulletins.*

365 Stud Drivers

"Nelson" stud driver models 600 and 660 (.22 and .25 cal.) provide means for fastening to concrete and steel that is fast and economical. Specially heat-treated steel fasteners provide strong holding power; individually designed accessories available to simplify many fastening jobs for all trades. — Distributor Sales Div., Gregory Industries, Inc.

366 Surface Anchors for Insulation

Three 4 page "Anchor" and "Mira" brochures describe surface anchors and how they are used for applying insulation without need for mechanical attachments.—Miracle Adhesives Corp.

367 Zinc Coated Steel Sheets

"Weirkote" tightly bonded, zinc-coated steel can be drawn, severely formed, crimped, rolled or seamed without harming the protective zinc coating. Product offers the permanent protection of zinc coating through any fabricating operation.—Weirton Steel Co.

Pipe, Tube, Hose & Conduit

368 Aluminum Tubing and Pipe

Complete catalog on aluminum tubing and pipe includes information on sizes and analyses produced, tolerances and physical properties, engineering data and temper designations, etc.—C. A. Roberts Co.

369 Brass and Copper Tube and Pipe

Catalog is useful guide for heating, refrigeration, air conditioning, plumbing, and architectural specifications and contains detailed data on copper water tube, drainage tube, commercial brass and copper tube, copper refrigeration tube, red brass and copper pipe, threadless pipe, integral finned tube and precision small gage seamless tube. — — Reading Tube Co.

370 Brass Pipe, Copper Tube and Fittings

Publication B-1 contains general information, engineering data and installation procedures for brass pipe and copper tube in heating, refrigeration, air conditioning, and plumbing applications. —Anaconda American Brass Co.

371 Carbon Steel Tubing for Pressure Uses

Four page booklet TB 142B contains information on seamless and welded carbon steel tubing for pressure uses. Includes condensed data on mechanical and physical properties, hot and cold working operation, and fabricating procedures.—Babcock & Wilcox Co., Tubular Products Div.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

372 Conduit and EMT

Sixteen page bulletin 485 describes advantages, applications, manufacturing and quality control methods of "Spang" conduit and "SpanGleam" EMT. Technical section includes complete product specifications plus many useful charts. — National Supply Div., Armco Steel Corp.

373 Conduit for Underground Piping

Twelve page catalog on "Thermo-O-Tile" conduit for underground piping gives application, dimensional, engineering and installation information. — H. W. Porter & Co., Inc.

374 Construction Fasteners

Literature available on new "Gat" spring steel type fastener for construction wiring, conduit, etc. — Erico Products, Inc.

375 Copper, Brass, Aluminum Tubing

Water tube catalog outlines line of copper, brass and aluminum tubing for plumbing and heating market. Included are types K, L and M copper water tube, copper drainage tube (DWV), copper and brass pipe and air chambers, plus other related information. — Wolverine Tube, Div. of Calumet & Hecla, Inc.

376 Copper and Brass Products

Thirty-two page stock list catalog lists sizes of sheet, roll, strip, rod, wire, tubing, pipe, roofing materials and other related copper and brass products, with applicable gauge and weight data. —C. G. Hussey Co. (Div. of Copper Range Co.)

377 Corrosion Resistant Pipe

Bulletin PL/L describes high silicon iron alloy pipe that is corrosion resistant to practically all commonly used process chemicals, and is used extensively in construction of acidproof waste lines. Fittings and caulking available; bell and spigot 1½ to 15 in. — The Duriron Co., Inc.

378 Corrosion Resistant Pipe Catalog

"Van-Cor" line of corrosion resistant unplasticized polyvinyl chloride pipe, fittings, valves, fabrication items, etc. described in engineering catalog. Pipe sizes range from ¼ through 12 in. IPS, in four schedules; molded fittings through 6 in., molded flanges through 8 in. Drainage fittings from 1½ through 4 in., with corresponding P and S traps. — The Colonial Plastics Mfg., Co., Industrial Div.

379 Corrosion Resistant Pipe and Tubing

Catalog describes analyses and grades of tubing and pipe available in the following size range: Pipe—2½ to 30 in. IPS in Schedules 20 through 160; 5 to 30 in. IPS in Schedules 5 and 10. Tubing—3 to 5 in. OD with walls 0.154 to 0.375 in.; 5 to 48 in. OD with walls 0.050 to 1 in. Engineering data and tables are also included.—C. A. Roberts Co.

380 Drainage Pipe and Fittings

Brochure covers "Tuftite" line of drainage pipe and fittings for residential and commercial use. They are extremely light weight, resistant to all normal household chemicals, permanently rootproof, easy and fast to install. — The Colonial Plastics Mfg. Co., Industrial Div.

381 Electrical Wiring Conduit

Bulletin S-542 describes construction, advantages, uses and specifications of "Sealtite" liquidtight electrical wiring conduit which protects wiring from moisture, dirt, chemicals, oil, heat, abrasion, vibration and is ideal for use on heating and air conditioning equipment. Flexibility makes installation easy even in cramped spaces. — Anaconda Metal Hose Div., Anaconda American Brass Co.

382 Expanded Polystyrene Insulation

Eight page booklet discusses "Uni-Crest" expanded polystyrene insulating material. Product is described, its physical properties listed, standard dimensions are given, and thicknesses for a wide range of temperature conditions are recommended. Photos and drawings illustrate various uses, and simplified techniques of installation and finishings are discussed. — Uni-Crest Div., United Cork Companies.

383 Flexible Rubber Pipe

Full-faced type F flanged flexible rubber pipe for air conditioning applications described in new bulletin 580. Pipe sizes, standard F-F lengths, working pressure and vacuum limitations for units from 1 to 12 in. ID. Also describes type S screw coupling flexible pipe; type G "Gen-Lok" flexible pipe, and GRC flexible rubber expansion joints. — General Rubber Corp.

384 Handbook of Tubular Products

Forty page handbook 393-C, contains dimensions, weights, test pressures and specifications for continuous buttweld and electric resistance weld steel pipe. Standard and tentative specifications for welded and seamless steel pipe also included. — Bethlehem Steel Co.

385 Heat Exchanger Tubing

Eight page brochure TB-431 introduces unique "Lectrosonic" heat exchanger tubing. Gives details of its manufacturing and testing procedure, pointing out features which make it particularly well suited for heat exchanger use.—Babcock & Wilcox Co., Tubular Products Div.

386 Industrial Water Pipe

Ten page brochure TR-254A tells how "Transite" asbestos-cement pipe combines initial cost savings with long term benefits; contains data for system design and guide specifications. Pipe is for water supply mains, distribution lines, plant fire protection and service, potable and cooling water. — Johns-Manville

387 Insulated Piping Systems

Catalog on prefabricated, underground and overhead distribution piping systems for steam, hot water, oil, process liquids and refrigeration lines is tabbed and indexed in five sections. Covers product types, engineering, specifications, drawings, installation. Describes systems of "Helcor," galvanized steel, "Uniline," type J, low temperature, cast iron and plastic coated. — Ric-Wil, Inc.

388 Insulated Prefabricated Conduit

New eight page catalog provides dimensional, engineering and installation information for "Porter-Hayden" conduit for underground piping systems in severe water areas. — H. W. Porter & Co., Inc.

389 Metal Framing Handbook

Catalog handbook 710 on metal framing construction and maintenance contains information for the use of product in framing, supporting and attachment applications in the heating, piping and air conditioning field. — Unistrut Products Co.

390 Pipe for Plant Fire Lines

Eight page illustrated brochure TR-253A gives specific information on "Transite" pipe for plant fire lines, its properties, acceptance and installation procedures. Included is large diagram of typical industrial fire protection system, data for design engineers and guide specifications.—Johns-Manville.

391 Pipe for Storm Water Drainage

Ten page folder TR-252A describing, illustrating "Transite" asbestos-cement pipe for storm water drainage and storm sewer systems for control of rain from roof level to outfall. Covers economic advantages. Contains job photographs,

system diagrams, information about "Transite" fittings available to complete installations. Also design data, guide specifications.—Johns-Manville.

392 Pipe, Tubing for High Temperature

Six page brochure T 467 contains information on 15 steels widely used in high temperature service. Includes data on tensile properties, thermal conductivity and expansion, creep strength, oxidation resistance and other such mechanical and physical properties.—Babcock & Wilcox Co., Tubular Products Div.

393 Plastic Pipe

Flexible polyethylene NSF approved pipe available in sizes ½ through 4 in. Semi-rigid, ABS type 1, NSF approved available in ½ through 6 in. sizes. Rigid PVC in sizes ½ through 6 in. — Goodall Rubber Co.

394 Plastic Pipe

Adv. 965 provides complete information on semi-rigid SRK plastic pipe; outlines its advantages, giving special emphasis and detailed information on ease of joining; includes complete technical data on pipe and fittings. Among the many uses described are water service, drain lines, and vent pipes for sewers and plumbing fixtures.—Republic Steel Corp.

395 Polyethylene Pipe

Fourteen page bulletin 29 describes polyethylene pipe and explains its properties, application, chemical resistance, temperature and pressure limitations, and gives installation instructions. — National Tube Div., United States Steel Corp.

396 PVC Pipe

Forty page illustrated bulletin 24 gives comprehensive discussion about normal impact and high impact polyvinyl chloride as a piping material with respect to their properties, chemical resistance, application, temperature and pressure limitations, and installation procedures.—National Tube Div., United States Steel Corp.

397 PVC Pipe Catalog

Forty page catalog contains corrosion ratings, information on thermal compensation, vacuum service, abrasion resistance, installation and application. Diagrams illustrate methods of joining PVC to other piping materials. Includes dimensional data and working pressure for Schedule A tubing. — A. M. Byers Co.

398 Radiant Heating and Snow Melting

Sixty-eight page illustrated bulletin 19 gives practical discussion of radiant heating and snow melting, including heat losses, temperature studies, design data, questions and answers, illustrations of methods, of floor and ceiling installations, coil patterns, heat transmission.—National Tube Div., United States Steel Corp.

• *When sending your requests, please be sure to type or print your name and address clearly.*

399 Radiant Panel Heating With Steel Pipe

Forty-eight page booklet describes radiant panel heating and gives information on design and suggestions for laying out and installing steel pipe for such systems. Contains questions, answers. — Committee of Steel Pipe Producers.

400 Stainless Steel Tubing, Pipe

Sixty page book STP-1 describes various types of "Electrunite Enduro" stainless steel tubing and pipe. Typical applications in various fields are illustrated and discussed. Included are complete processing and finishing operations and photographs. — Republic Steel Corp.

401 Steel Couplings and Pipe

Bulletin gives sizes, lengths, threads, weights and carton content of steel pipe couplings plus specifications on steel pipe, including standard, extra strong, double extra strong and structural pipe. — Wheatland Tube Co.

402 Steel Pipe

Advantages and applications of steel pipe, both continuous butt weld and electric resistance weld, are presented in Adv. 1081, which includes data on dimensions, weights, test pressures. Installations for such uses as waste, vent and drain lines, radiant heating, snow melting, fire protection systems and structural applications described. — Republic Steel Corp.

403 Steel Pipe

Booklet tells complete story of why manufacturer's steel pipe is easy to use, hard to abuse, how its made, its advantages, weights, dimensions, where it can be used, test pressures, etc. Included are photographs and technical data, tables and other buying information. — Wheeling Steel Corp.

404 Steel Pipe Catalog

New eight page catalog provides information on complete line of steel pipe, an addition to company's pipe product line. Data on continuous weld, standard, extra strong, and double extra strong steel pipe included. Bundling schedule and quantity extras given. — A. M. Byers Co.

405 Steel Pipe Data, Specifications

Twenty page bulletin 509 describes the quality controlled manufacture of "Spang" pipe, giving case histories and telling how it helped get the job done easier, faster and more economically in different types of installations. Includes section on specifications for standard pipe. — National Supply Div., Armco Steel Corp.

406 Steel Pipe Snow Melting and Ice Removal

Thirty-two page booklet covers the use of steel pipe for snow melting and ice removal installations. It contains design information and discusses good installation practices. It is well illustrated and carries a question and answer section. — Committee of Steel Pipe Producers.

407 Thermoplastic Pipe and Tubing

Extruded pipe and tubing in all thermoplastic materials, ½ to 12 in. diameter, and used as ducts, conduits or conveyors, are described. Prices depend upon quality of any product and size purchased as well as particular material. — Southern Plastics Co.

408 Tube and Pipe

Booklet on tube and pipe for general construction covers the advantages and uses of copper water tube, DWV and "Dryseal" copper tube, red brass and copper pipe. — Revere Copper and Brass Inc.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

409 Tubing, Extruded Shapes

Brochure entitled "Statement of Scope" outlines complete line of products. Included are the metals and alloys in which seamless tubing is produced, compositions, tube size ranges, types of products, the markets they serve, location of sales offices. — Wolverine Tube, Div. of Calumet & Hecla, Inc.

410 Wrought Iron Building Drainage Pipe

Sixty-two page bulletin tells what "4-D" wrought iron is, its advantages in building drainage and describes various corrosive conditions found in drainage systems. Also covers the "Durham" system vs the bell-and-spigot installation, a building survey, service reports, performance tables, cost consideration, specifying data. — A. M. Byers Co.

Piping Specialties, Steam Traps, Expansion Joints, Pipe Hangers, Etc.

411 Air Release Valves

Bulletin 856 contains description, operation, applications and types of air release valves. Included are specifications, capacities and typical piping illustrations for hot water service lines, heating and cooling coils and filter tanks, other process equipment. — V. D. Anderson Co.

412 Ball Joints for Thermal Expansion

Eight page bulletin 31 illustrates the use of ball joints for connections to boilers, burners, etc., where thermal expansion and/or contraction create piping problems. Line drawings, dimension tables and photographs are included to describe basic piping arrangements adaptable to almost any piping application.—Barco Mfg. Co.

413 Centrifugal Blowdown Separator

Centrifugal blowdown separator, described in bulletin 30, is an answer to safe, economical boiler blowdown. It is used in place of a conventional blowdown tank or basin. — Wilson Engineering Corp.

414 Check Valves

New 16 page catalog 162 describes "Streamflow" center guided check valves in sizes 1 through 20 in. for pressures from 125 through 2500 lb. Available in cast iron, cast steel, stainless, bronze, aluminum and other alloys. Features described and illustrated, specifications and dimensions tabulated.—Miller Valve Co., Inc.

415 Corrosion Resistant Sinks

Bulletin describes "Durcon" epoxy resin sinks, lightweight, heavy duty, resistant to practically all laboratory chemicals and easily installed. Will not crack due to thermal shock. They are solid castings with coved corners and bottoms dished to the outlet. Overflows, outlets, traps available. — The Duriron Co., Inc.

416 Expansion Absorbers Guide

Four page bulletin EJB-603 describes expansion absorbers for use in small diameter steam, hot water and chilled water lines. Complete guide to their selection and application includes detailed technical and dimensional data. — Badger Mfg. Co.

417 Expansion Compensators

Bulletin 205 describes new high pressure expansion compensators in stainless steel and bronze. Designed to replace previous methods, such as slip joints, swing joints, pipe loops, or bends; units available for pressures to 175 psig, temperatures from −60 to 250 F, with 1¾ in. compression and ¼ in. extension.—Flexonics Corp. (A Subsidiary of Calumet & Hecla, Inc.)

418 Expansion Joint Design Guide

Forty page expansion joint design guide 222 covers engineering application and selection data. A discussion of the various types of expansion joints on the market, types of pipe line motion solved by expansion joints, expansion joint design considerations, installation instructions, and selection data is included in publication.— Flexonics Corp. (A Subsidiary of Calumet & Hecla, Inc.)

419 Expansion Joints

Six page bulletin EJB-602 on S. R. expansion joints is brief digest of information on their nomenclature and selection, and a guide to making inquiries for specific applications — Badger Mfg. Co.

420 Expansion Joints

Bulletin describes and illustrates uses of metallic expansion joints, advantages,, and ranges of longitudinal and lateral movement allowed by

various sizes. Chart lists maximum pressures for lengths to 6 ft of galvanized and stainless steel in sizes from 4 to 20 in. ID. — Pennsylvania Flexible Metallic Tubing Co., Inc.

421 Expansion Joints

Twelve page bulletin EJ-1917 on "Gun-Pakt" expansion joints describes features and advantages of this unique slip type joint, gives dimensions, weights, and other helpful selection information. Tells how to figure expansion of pipe lines, gives installation suggestions, etc. — Yarnall-Waring Co.

422 Expansion Joints, Flexible Couplings

Twelve page bulletin AD-137 on rubber expansion joints, spool type, U-type, tapered and offset types also covers "Teflon-lined" rubber expansion joints, all "Teflon" bellows type expansion joints and flexible couplings. Various types, sizes, dimensions and other technical data given. — Garlock Inc.

423 Flexible Ball Joints

Catalog 250 gives complete information on threaded, flanged and welding end, high temperature flexible ball joints. Dimensions, temperature and pressure ratings, available styles and application photos. Ball joints are used to handle thermal expansion or contraction and other applications where rigid piping must move. — Barco Mfg. Co.

424 Flexible Metal Connector Tubing

Bulletin AX-97 gives specifications, uses and description of A-X tubing, a flexible metal connector designed to handle axial, radial, dual-radial or shear movements while conveying liquids or gases. Available in sizes 5 through 14 in. ID, in stainless steel and other alloys, it is generally sold complete with end fittings. — Anaconda Metal Hose Div., Anaconda American Brass Co.

425 Flexible Rubber Expansion Joints

Six page catalog 888 describes complete line of hand fabricated type GRC rubber expansion joints and flexible rubber pipe. Mechanical properties, dimensions, pressure and movement limitations for flanged, spool-type expansion joints from 1 to 72 in. diameters. Lists applications of standard, reducing, filled arch and lined expansion joints for pressure, vacuum, pressure- vacuum service. — General Rubber Corp.

426 45 Deg Welding Laterals

Forty-five deg welding lateral joints for installation of "Y" sections in pipe are precision machine cut for perfect fit-up, resulting in uniform strength. Made in any material, with certification if desired.—Allied Piping Products Co., Inc.

427 Impulse Steam Traps

Eight page bulletin T-1743 on three lines of impulse steam traps for normal, light and extra heavy condensate loads gives capacities, weights, dimensions, prices and other helpful selection and purchase information. Data on pipe line strainers included. — Yarnall-Waring Co.

428 Metal Framing Handbook

Catalog handbook 710 on metal framing construction and maintenance contains information for the use of product in framing, supporting and attachment applications in the heating, piping and air conditioning field. — Unistrut Products Co.

429 Metal Hose Design Guide

New metal hose design guide, catalog 225, covers application and selection of metal hose. Various end fittings are illustrated and described.—Flexonics Corp. (A Subsidiary of Calumet & Hecla, Inc.)

430 Packless Expansion Joints

Packless expansion joints for water or steam are described in bulletin 65. Pipe sizes ¾ through 6 in., working pressures to 150 psig. All metal seamless bellows, multi-ply for greater flexibility at higher pressures and longer life are features of these joints. Brass, monel, stainless steel materials available. — Robertshaw-Fulton Controls Co., Fulton Sylphon Div.

431 Packless Expansion Joints

Bulletin 59-50 describes and illustrates line of "Adsco Corruflex" packless expansion joints. Engineering, installation data and comprehensive tables of forces, movements and dimensions given. — Yuba Consolidated Industries, Inc.

432 Pipe Hangers and Supports

Catalog PH58, 128 pages, shows illustrations, sizes, weights, capacities for rigid, adjustable, variable spring and constant support hangers; clamps, rolls, clevises, screw eyes and clips; flanges, rings, brackets, concrete inserts for supporting piping. Whether you're hanging 55 tons of main steam or ¼ in. copper tubing, what you need is shown.—Grinnell Co., Inc.

433 Pipeline Strainers

Form 30-ADV describes new line of backwash pipeline strainers which can be cleaned free of accumulated debris in one-tenth the time normally needed. No bolts, covers or straining elements to remove or replace, no special tools needed. Backwash feature offers complete concealment which protects maintenance personnel from exposure to toxic, caustic or noxious fluids, or high temperature water. — Zurn Industries, Inc., Fluid Control Div.

434 Piping Shock Control Manual

New eight page manual 60-2 describes "Shoktrol" method of arresting and eliminating shock and knock in piping systems. Unit of all stainless steel welded bellows is precharged with air to prevent contaminating pipe line supply should unforeseen damage occur. Corrosion resistant and lighter than comparative models. — Zurn Industries, Inc., Hydromechanics Div.

435 Power and Process Piping

New 24 page bulletin 60-B features facilities and procedures for the fabrication and erection of power piping systems and industrial process piping. Profusely illustrated with photographs of actual installations and equipment for producing carbon and alloy steel piping in all sizes. —Midwest Piping Co., Inc.

436 Purifier for Air, Gas, Steam

Bulletin 503 describes types LC and LCR line of "Hi-eF" purifiers for removal of moisture and dirt from air, gas and steam applications. Contains features, specifications and recommended installation for efficient trouble-free operation. — V. D. Anderson Co.

437 Remote Operation of Valves

For those concerned with valves and piping, bulletin sheet details adjustable sprocket rim with chain guide, a simple device for remote operation of overhead or otherwise out-of-reach valves. Gives price list, ordering directions and cites accident reduction, waste prevention and simplification of piping layout. — Babbit Steam Specialty Co.

438 Rubber Expansion Joints

R/M rubber expansion joints absorb pipe movement and respond to the slightest pressure, thereby preventing stress and strain on pipe and fittings that may be trouble-makers in ventilating and air conditioning systems. They also insulate components against destructive vibration and noise while compensating for misalignment. — Raybestos-Manhattan, Inc., Manhattan Rubber Div.

439 Shaped Nipples

Shaped nipples described in bulletin are short lengths of pipe cut with contour on one end to mate snugly against the run pipe for fabrication of tee and lateral joints, reducing cost of pipe joints. Available in plain bevelled ends for welding in sizes up to 36 in. and in threaded ends in sizes up to 4 in. — Allied Piping Products Co., Inc.

440 Slip Type Expansion Joints

Engineering bulletin 57-15B describes and illustrates line of "Adsco" slip type expansion joints. Provides details of construction, suggestions for use, installation data and appropriate engineering information. — Yuba Consolidated Industries, Inc.

441 Stainless Steel Bellows Data

Comprehensive catalog which includes application and engineering data on laminated stainless steel bellows. Included is data on expansion compensators, expansion joints, vibration absorbers, flexible conectors and pipe guides. — Keflex Mfg. Div. of U. S. Flexible Metallic Tubing Co.

442 Steam Condensate Meter

"Cadillac" condensate rotary meter measures steam condensate in atmospheric or vacuum systems and has high accuracy from rated capacities down to zero. This meter registers to ten million pounds, is inexpensive to maintain, is known for long life and comes in sizes from 250 to 12,000 lb per hr.—Central Station Steam Co.

443 Steam Trap Book

Thirty-six page book tells how to select and size steam traps, provides selection, installation and maintenance data. Includes pipeline strainers and purifiers, giving specifications and typical piping illustrations. Information on inverted bucket, thermostatic, combination, float, high pressure and moisture traps given. — V. D. Anderson Co.

444 Steam Trap Book

Forty-eight page steam trap manual and catalog includes complete data on open float and thermostatic traps for preheat and reheat coils, converters, etc., standard steam traps for all pressures, pipe strainers to 6 in. in steel and high tensile iron. Contains data on trap selection, installation, testing, maintenance.—Armstrong Machine Works.

445 Steam Traps

Catalog FE-310 provides detailed information about complete line of low cost bi-metal thermostatic and float thermostatic steam traps available in wide variety of pressure ranges, body patterns, sizes and connections. These new traps have stainless steel bi-metal thermal element.—MIL Div., Farris Engineering Corp.

446 Steam Traps

"Sterlco" float and thermostatic traps and thermostatic radiator traps, both equipped with the "Sterlco" vacuum thermostat, described in bulletin 102-202. Construction enables traps, if damaged, to fail in closed position. Cold radiation indicates trap needs attention, reducing maintenance problems. All thermostatic elements external. Built for pressures to 100 psig. —Sterling, Inc.

447 Strainer Manual

Manual 6008 details specifications, pressure-temperature limits, and screen materials for over 600 Y strainers for steam, air, gas and liquids. Charts to determine pressure drop simplify strainer specifications as do the freehold area tables for choosing the proper screen material. — Leslie Co.

448 Temperature Regulators

Bulletin 560 illustrates and describes type T direct acting and type AT pilot operated self-

Advertisers in Heating, Piping & Air Conditioning have furnished these descriptions of their catalogs, bulletins, and other helpful data. Copies are available on request.

contained temperature regulator, also combination pressure and temperature regulators, types PTT, PTS and PTM available in either bronze or semi-steel body with stainless steel pilot valve, main valve and seat.—O. C. Keckley Co.

449 Thermostatic Radiator Valves

Thermostatic radiator valves to provide individual room or area temperature control on two pipe steam or hot water systems described in "Thermotrol" bulletin 501. Completely self contained, no external power source. Ideal for modernizing and inexpensive control systems for new construction. Sizes are ½, ¾ and 1 in., in all body patterns.—Sterling, Inc.

450 Thermostatic Steam Traps

Bulletin describes bronze body, angle or straight through, ½ to 1 in. thermostatic steam traps and semi-steel body, angle or straight through, ½ to 2 in., for steam pressures from vacuum to 250 lb psi, temperature 450 F, without changing valves, seats. Bellows of phospher bronze or stainless. — Frank D. Riggio Co., Inc.

451 Traps, Regulators, Specialties

Twelve page condensed catalog illustrates and describes complete line of steam traps, temperature regulators and heating specialties.—Sarco Co., Inc.

452 Vibrating Earth Borer

Form ACI-59 describes new gas engine "mole" that bores holes under roads, sidewalks and driveways. Tool eliminates breaking, underexcavating and resurfacing.—Remington Arms Co., Inc.

453 Wall Openings

"Diamond Times No. 6" brochure on one of the many uses for industrial diamond drilling gives on-the-job photos and explanations of cutting openings in reinforced concrete walls. — E. J. Longyear Co.

Pumps & Pumping Equipment

454 Centrifugal Pumps

Centrifugal pumps described in bulletin are designed to handle most liquids and slurries under a variety of conditions. Range of sizes and capacities in cast iron, steel, alloys and specialized coatings, including rubber lined. — Buffalo Forge Co., Buffalo Pumps Div.

455 Centrifugal Pumps

"Adapt-Able" line of end suction centrifugal pumps includes conventional line of centrifugal pumps over a wide range of horsepowers and sizes, as well as non-clog line for handling liquids containing solids. Publication APEL250.12 gives features of pumps, such as basic design in matching mounting dimensions, shaft sizes, etc., with NEMA rated motors. — Fairbanks, Morse & Co.

456 Circulator for Hot Water Heating

Brochure F-1000 describes No. 1000 circulator for forced hot water heating systems. Contains information on flow curves, weights, dimensions, description and accessory products, such as combination air eliminator and flow check, tank drain, diversion fittings, ASME relief valves, tempering valves, and feedwater pressure regulators. — Watts Regulator Co.

457 Condensate Return Pumps

Bulletin No. 19-B features new wide range of pump types, sizes, capacities and pressures of UV pump which is designed for return of condensate to the boiler or other points from steam heating systems or process equipment. Open pits not required; pump can be installed with cover plate flush with floor. — Skidmore Corp.

458 Condensate Return Units

Bulletins 900 and 910 describe capacity, performance and capabilities of simplex and duplex condensate return units with cast iron or steel receivers for all types of "wet" heating systems. Available in wide range of models and capacities, units can be converted to boiler feed use. Selection tables and specification data included. — The Weinman Pump Mfg. Co.

459 Condensation Pumps

The 4100-4200 series condensation pumps for low pressure systems up to 15,000 sq ft EDR are described in bulletin 700. Efficient, non-overloading centrifugal pumps for quiet operation. Three basic tank sizes for close adjustment to boiler water level. Steel or cast iron receivers. Built in simplex or duplex models with several different control systems are described.—Sterling, Inc.

460 Cooling Tower Pump Design Manual

Bulletin CT-360, an eight page design manual, gives complete sizing and selection procedures and data for cooling tower pumps and piping. — Bell & Gossett Co.

461 End Suction Pumps

Eight page bulletin 117 describes type GA end suction centrifugal pumps which feature interchangeable mechanical seal or insert, keyed impeller, low NPSH, vertical discharge, capacities to 450 gpm, heads to 210 ft. Includes cutaway views, selection charts, dimensions, construction, limitations and engineer-architect specifications. — Aurora Pump Div., The New York Air Brake Co.

462 Flexible Cushion Couplings

Twenty page bulletin 901A discusses three types of "Para-flex" flexible cushion couplings with unique flexing member of fiber and rubber which compensates for angular and parallel misalignment and end float, cushions vibrations and shock loads: Engineering drawing, photographs, selection tables and service factors for wide range of applications. — Dodge Mfg. Corp.

463 General Service Pumps

Bulletin 100 covers type AC "Unipumps," which are designed to deliver efficient pressure boosting service, hot and chilled water circulation and to meet many other general purpose pumping requirements. They are available in 21 different models with output ratings from 10 to 260 gpm.—The Weinman Pump Mfg. Co.

464 Heavy Duty Sump Pump

New bulletin B-700 E on heavy duty sump pumps designed for continuous service and equipped with non-clog impellers, bottom suction with cast iron screen, self-aligning thrust bearings and flexible couplings. Pumps are supplied with float control, micro-switch controls or new "Vis-A-Trol" for special conditions. — Weil Pump Co.

465 Motor Application Guide

Sixteen page application guide bulletin 270B outlines electric motors ranging in size from 1/20 to 400 hp. Includes polyphase, single phase and direct current motors. Factors to consider in motor selection are discussed along with numerous motor selection charts.—Century Electric Co.

466 Motor-Pump Line

Complete booklet shows entire "Motorpump" line from ¼ through 75 hp for deliveries to 3200 gpm. Each type described, along with performance and dimensional information. — Ingersoll-Rand.

467 Motor-Pump Units

Eight page booklet describes packaged K line of "Motorpumps". Complete information on sizes from 1/3 through 25 hp for deliveries to 775 gpm. — Ingersoll-Rand.

468 New Motor-Pump Units

Four page form covers 1750 rpm speed "Motorpumps" now available as part of present packaged K line of pumps. Pictures, description, performance and dimensional information given. — Ingersoll-Rand.

469 Proportioning Pumps

Bulletin describes advantages of "Baco" proportioning pumps and chemical feed units and includes tabulations of capacity and pressure vs. motor horsepower. Pumps are high pressure, low capacity, reciprocating plunger types designed for application where a controlled capacity of fluid is required.—The Bird-Archer Co.

470 Pump Application Bulletin

Publication APEB100.17 gives brief description of each line of pumps. Guide is indexed according to type of liquid to be pumped, quantities and pressures required in order to give best possible selection of equipment for given application. — Fairbanks, Morse & Co.

471 Pump Specification Pages

5820 series of specification pages 224.6 through 224.26 are individually printed to cover performance, dimensions, weights, construction, etc. of each of individual pumps in redesigned line of horizontal, split case centrifugal pumps for moderate liquid applications where special construction is not required. Designed for moderate cost installations. — Fairbanks, Morse & Co.

472 Pump Valve Units

Eight page bulletin describes valve units designed to fit any reciprocating pump, old or new, and includes illustrations and descriptions of the component parts, pressure-temperature ratings, and a table of seat sizes and dimensions. Made in 17 sizes, these units meet over 300 variations in installation requirements.—Durabla Mfg. Co.

473 Pumps

New bulletin describes line of condensate, turbine, boiler feed, centrifugal, and proportioning pumps, and fuel oil pump and heater sets. The six basic types are shown, together with operational features and construction details. — Walter H. Eagan Co., Inc.

474 Pumps

Pumps for every purpose, including condensate, boiler feed, fuel oil, sump, sewage, chemical feed, centrifugal transfer and fuel oil pump and heater sets are described.—Walter H. Eagan Co., Inc.

475 Pumps

Pumps for air conditioning, hydronic systems and all building trade requirements presented in general catalog B-127, which contains sectional drawings and informative charts on all pumps in line. Featured are horizontal and vertical types. Capacities, heads, temperatures and pressures. — Peerless Pumps, Hydrodynamics, Div., Food Machinery and Chemical Corp.

476 Resilient Mounted Motors

Bulletin describes resilient mounted motors rated through 10 hp which are ideal for hospitals, churches, theaters, office buildings and other locations that require exceptionally quiet heating and air conditioning equipment. Gives construction details of mounting and horsepower ratings as well as motor types available with the mounting.—Wagner Electric Corp.

477 Sealed Pump Controller

"Sealtrode" bulletin 128-A illustrates and describes sealed electrode floatless pump controller

that eliminates failures caused by insulated, coated or corroded unprotected electrodes. They are suspended in a sealed support pipe enclosed on bottom by flexible bulb partially filled with an electrolytic solution that duplicates liquid level in wet well. — Chicago Pump, Food Machinery and Chemical Corp., Hydrodynamics Div.

478 Sewage Handling System

New 28 page bulletin 122-D details redesigned sewage handling system with new "Flo-Thru" strainer which handles modern high solids loadings of wet strength paper products and ground garbage without clogging or interruption. Pumps can't clog because solids never reach impeller. Eight types suitable for capacities up to 1500 gpm.—Chicago Pump Co. Food Machinery and Chemical Corp., Hydrodynamics Div.

479 Split Case Centrifugal Pumps

Bulletin 1200 describes type L single stage, split case pumps built for high, medium or low head pumping requirements. Ideal for municipal, public building and industrial use. Chilled water or condensate circulation and liquid handling applications in paper mills, chemical plants, distilleries and refineries. Thirteen models available, 100 to 600 gpm.—The Weinman Pump Mfg. Co.

480 Submersible Non-Clog Sewage Pump

Bulletin 97 explains advantage of utilizing submersible type pump in sewage service. Pump and motor designed to operate completely submerged with capacities to 300 gpm, heads to 50 ft. Separate cast iron suction tripod locates pump suction in correct position for obtaining maximum inflow efficiency. — Chicago Pump, Food Machinery and Chemical Corp., Hydrodynamics Div.

481 Suction Head Compensator

New, patented chamber which is installed at the suction side of pump contains a reservoir of water and compressed air which acts as a cushion smoothing out pulsation; and eliminates surges due to increases or decreases in the pressure. Effective in all water systems.—Cobra Pipe Supply & Coil Co.

482 Turbine Type Pumps

New 8 page bulletin describes latest design features of "Apco" turbine pumps. Also included are exploded views, selection chart, limitation charts, construction specifications, and detailed engineering-architect specifications. Pumps feature hydraulic balance with double suction design. Capacities range up to 150 gpm, pressures to 300 psi, temperatures to 275 F. — Aurora Pump Div., The New York Air Brake Co.

483 Vertical Centrifugal Pump

Bulletin VKY-6800B describes a space saving, economical, vertical design centrifugal pump that is all ball bearing, floor mounted, flexible coupled, and has mechanical shaft seal. Applications include hot and cold water circulating, water supply booster service, condenser water circulating for air conditioning. — Weil Pump Co.

484 Vertical Condensate Pump

Type CCVS vertical condensate pump and receiver combines latest features of centrifugal pump design with minimum space requirements and offers wide range of selectivity. Pump will operate free of any close clearance, thus assuring longer operational periods without cost for service, parts or maintenance. Capacities from 500 to 10,000 sq ft EDR, pressures 20 to 40 lb. — Skidmore Corp.

485 Vertical Turbine Pumps

Bulletin 14 describes the types, construction, and applications of "FloWay" vertical turbine pumps, designed in several models for a broad range of industrial usage and which have a record of proven performance in pumping every fluid, corrosive or non-corrosive, hot or cold, volatile or non-volatile. Capacities of these vertical turbine pumps range up to 4000 gpm.—Fiese & Firstenberger Mfg., Inc.

Radiation, Surface & Coils

486 Baseboard and Wall Radiation

Catalogs give complete work data on type F baseboard radiation and "Modernline" wall radiation for use in residential, commercial, industrial, institutional, educational, government and other applications. Specifications, dimensional data and ratings included.—Fedders Corp.

487 Brass and Copper Tube and Pipe

Catalog is useful guide for heating, refrigeration, air conditioning, plumbing, and architectural specifications and contains detailed data on copper water tube, drainage tube, commercial brass and copper tube, copper refrigeration tube, red brass and copper pipe, threadless pipe, integral finned tube and precision small gage seamless tube. — Reading Tube Co.

488 Cast Iron Baseboard Moulding and Seal

Bulletin C-292 describes "Trim-Seal," a heat-proof extruded neoprene moulding for cast iron baseboards which has the appearance of and replaces cove moulding. Installation procedure illustrated. — Weil-McLain Co.

• *Your comments on this Trade Literature Supplement to Heating, Piping & Air Conditioning are invited.*

489 Convector Radiators

Thirty-two page catalog 4059 illustrates and describes how modern design and engineered heating efficiency combine to make convector radiators ideal for steam or hot water heating systems. Technical data, general application photos, construction features, steam and hot water capacities, dimensional data and engineering specifications included. — Young Radiator Co.

490 Direct Expansion Coils

Catalog 405-2 describes sizes and models of type 5X direct expansion coils engineered and designed to deliver maximum heat transfer efficiency under all operating conditions. Data on coil selection, specifications, applications and dimensions included. — McQuay Inc.

491 Direct Expansion Coils

Catalog 52C8a presents specifications, detailed selection data, and dimensions for line of direct expansion cooling coils. Ratings show capacity for coils performing all wet, partially dry or completely dry through wide range of operation conditions. — Recold Corp.

492 Fin Tube Radiation

Bulletins 1640, 1650 and 1660 cover complete line of fin tube radiation including baseboard, commercial and industrial, and sill type.—Sarco Co., Inc.

493 Finned Surface Coils

Literature describes "Turbu-Flo" finned coils for cooling or heating and for use with refrigerant, chilled or hot water, or steam (both standard and non-freeze types). — Halstead & Mitchell Co.

494 Finned Tube Radiation

Simplified design of finned tube radiation speeds installation so one man can install it. Variety of lengths eliminates need for cutting enclosures on job. Enclosures available in several heights to accommodate one, two or three tiers of 3 and 4 in. finned heating elements. Sloping and flat top models. —Modine Mfg. Co.

495 Functional Ceiling

Twelve page bulletin 138 describes completely self-contained suspended ceiling offering radiant panel heating, cooling and acoustic control. — Burgess-Manning Co., Architectural Products Div.

496 High Temperature Water Radiation

Twenty-four page bulletin describes HTW "PanelVectors," designed for direct utilization of high temperature water. Design, construction and features explained; benefits of high temperature water discussed; engineered heat distribution considered. Technical data section includes tables and charts of lengths, ratings, water flow, dimensions, surface temperatures, etc. — Shaw-Perkins Mfg. Co.

497 Hydronic Heating Catalog

Hydronic heating ratings, data, and dimensions catalog provides information on design and construction of equipment for residential and commercial applications. Included are gas and oil fired cast iron boilers; gas and oil fired conversion burners; nonferrous and cast iron baseboard heating panels and wall-mounted convectors, and cast iron radiators. — American-Standard, Plumbing & Heating Div.

498 Individual and Strip Fin Tubing

Bulletin on individual and strip fin tubing for intercoolers, aftercoolers, cooling, heating and air conditioning coils and baseboard radiation emphasizes design and fabrication of special purpose heat transfer assemblies of every description and in special alloys. — The G & O Mfg. Co.

499 Institutional Radiation

Sixteen page bulletin 1-60 on institutional "PanelVectors" for room heat distribution discusses heating of hospitals and other buildings. Features are described, tables of lengths and ratings presented, mounting and end panel information given, and specifications shown. — Shaw-Perkins Mfg. Co.

500 Panel Grids for Radiant Heating

Publication B-6 gives full information, including engineering data and suggested layouts, for using panel grids (PG's) in ceiling or floor radiant panel heating systems. The panel grid is machine-formed, ready to install without further bending on the job.—Anaconda American Brass Co.

501 Pipe Coils and Fin Coils

Engineering data book on pipe coils and fin coils prepared especially for design engineers. This 48 page publication is a guide in the design of coils, with specific data on dimensional limitations, coil development formulas, and heat transfer factors. Numerous reference and design tables are included.—Rempe Co.

502 Radiant Baseboard

New cast iron "Base-Ray" damper for room-by-room temperature control meets FHA requirements for series loop installations. One model available in 4 to 8 ft lengths fits both models 7A and 9A cast iron radiant baseboards. — Burnham Corp.

503 Steam Coils

Bulletin M-10 contains information on new design "Evntemp" distributing steam coils for modern heating systems using modulating or two-position controls. Unique design provides even temperature throughout entire face area, even when partially throttled during light loads, with precise control. — Marlo Coil Co.

504 Steam-to-Water Convertors

New 12 page bulletin 50-1 describes "Paracoil" series K steam-to-water convertors, gives ca-

pacity table from 0 to 15 psig steam. For application in commercial, domestic and industrial systems employing forced circulation of hot liquids at low and high temperature. — Davis Engineering Div., Tube Reducing Corp.

505 Surface and Coil Radiation

Cast aluminum radiation element, especially adaptable for high pressures and unsurpassed where ruggedness and corrosion resistance are required, has patented 45 deg directional fin feature and chamber shape. This makes high thermal efficiency possible in a more compact radiation element, resulting in savings. — Wilson Engineering Corp.

506 Wall Mounted, Ceiling Hung Radiators

Sixteen page bulletin on "Airadiators" that are wall mounted or ceiling hung and are designed for commercial and industrial heating gives information on design and construction features. Tables of lengths and ratings, roughing-in dimensions, conversion factors, engineering notes, and suggested piping layouts included. — Shaw-Perkins Mfg. Co.

Refrigeration Equipment and Components for Air Conditioning

507 Air Conditioning, Refrigerating Equipment

Bulletin 79-A shows briefly complete line of air conditioning, refrigerating, ice making and quick freezing equipment.—Frick Co.

508 Air Conditioning, Refrigeration at Hotel

Vol. 32, No. 10 of house organ, features The Homestead, describing use of "Shell-Ice," and air conditioning and skating rink at Hot Springs, Va. Ski runs using artificial snow are also described. — Frick Co.

509 Air Cooled Condensers

Bulletin AC-102 gives complete performance data, dimensions, and description on air cooled condensers. There are four types covered in bulletin: horizontal air flow, vertical air flow, centrifugal fan, and residential type. — Halstead & Mitchell Co.

510 Air Cooled Condensers

Catalog 34C9a describes specification, performance and selection of "Dricon" air cooled condensers in vertical or horizontal models. Available with "Wintermatic" control system for year 'round head pressure control. Large slow-speed belt-driven fans for quiet operation featured. In eight sizes with capacities from 5 to 60 tons. — Recold Corp.

511 Air Duct Thermometers

Catalog 110 covers air duct thermometers in 8, 9 and 12 in. bronze case and red reading mercury tubing, with fixed flange or union connection flange in stem lengths available to suit the requirements.—The Philadelphia Thermometer Co.

512 Brass and Copper Tube and Pipe

Catalog is useful guide for heating, refrigeration, air conditioning, plumbing, and architectural specifications and contains detailed data on copper water tube, drainage tube, commercial brass and copper tube, copper refrigeration tube, red brass and copper pipe, threadless pipe, integral finned tube and precision small gage seamless tube. — Reading Tube Co.

513 Commercial Gas Air Conditioning Units

Four page illustrated brochure, "Everyone is Happier . . ," outlines the various advantages of Arkla-Servel "Sun Valley" gas air conditioning units for use by business establishments. Folder is useful as mailing piece as there is room on the back for sales message.—Arkla Air Conditioning Corp.

514 Compressors

Bulletin C460B describes air cooled, complete package condensing units. "Unicon" compressors are water-free, have light weight design, low silhouette, and all-weather aluminum housings. Ideal for roof top mounting, saving valuable interior space. Easy servicing, year 'round operation and freedom from corrosion problems are features. — Kramer Trenton Co.

515 Condensers, Condensing Units

Bulletin FAC 360 describes "Fandaire" condensers and condensing units, gives exclusive features. Construction features, dimension schedules, capacity data and optional equipment included. — Yuba Consolidated Industries, Inc.

516 Condensing Units

Four page presentation piece introduces new line of condensing units with many features incorporated. — Janitrol Heating & Air Conditioning Div., Midland-Ross Corp.

517 Cooling Coils

Bulletin 11 contains complete information on line of cooling coils, including "Sicromatic" charts and rule permitting direct graphical coil selection in seconds. One chart provides all data for a particular application, including proper refrigerant or chilled water temperatures.—Marlo Coil Co.

518 Cooling Towers

Revised 28 page bulletin 207 covers complete line of fireproof cooling towers from 10 to 800 tons in single, factory-assembled units. Engineering drawings, capacity and performance data, selection tables, and description are given for blow-through, draw-through, centrifugal fan, and tubeaxial fan models. — Baltimore Aircoil Co., Inc.

519 Cooling Towers

Bulletin 478 describes 4-B series water cooling towers for commercial and industrial air conditioning. Feature low silhouette, quiet operation (squirrel cage blowers used), hot dipped galvanized after fabrication, redwood drift eliminators and decking, clog-proof "Roto-Jet" spray nozzles. Sixteen sizes which handle systems from 5 to 360 tons. — Binks Mfg. Co.

520 Cooling Towers

Catalog BC-3 gives information on line of cooling towers. Single, double and modular flow models (5 to 550 tons in single cell units) for refrigeration, air conditioning and industrial applications described. Dimensional and performance data and construction given. — Bloomer Cooling Towers, Fiske Co.

521 Cooling Tower

Series 3 cooling tower designed for central station air conditioning and refrigeration has cooling capacity of 60 to 600 tons. It offers a low profile with no orientation limitations and a pleasing design which may eliminate the need for decorative enclosures. — Fluor Products Co.

522 Cooling Towers

Bulletin describes induced draft cooling towers with propeller fans (2 to 150 tons) for outside installation and centrifugal fan (5 to 30 tons) for indoor installation or use with ductwork. Take-apart models also available.—Halstead & Mitchell Co.

523 Evaporative Condenser Engineering Manual

Revised bulletin 143 covers theory, construction, selection, installation, ducting, refrigeration piping and capacity control of evaporative condensers. Schematic drawings illustrate evaporative condenser operation along with psychrometric and entropy diagrams. Selection diagrams are given for refrigerants 12 and 22 and ammonia under both dry and wet operation. Pipe sizing tables included.—Baltimore Aircoil Co., Inc.

524 Evaporative Condensers

New 24 page bulletin 107 covers complete line of evaporative condensers from 10 to 700 tons in single, factory-assembled units. Engineering drawings, capacity and performance data, selection tables, and description are given for blow-through, draw-through, centrifugal fan, and tubeaxial fan models. — Baltimore Aircoil Co., Inc.

525 Evaporative Condensers

Catalog 30C9a presents specifications and performance data for "Dri-Fan" evaporative condensers which come in 16 sizes with capacities 4 to 232 tons. Tables simplify selection for use with R-12, R-22 or ammonia. Selection method is provided for multi-circuit applications for R-12 or R-22. — Recold Corp.

526 Evaporative Condensers

Full line of evaporative condensers detailed. Twelve page bulletin includes construction features of both VXF and VSC types with data and dimensions, performance charts and typical installation photographs. Condensers are available for refrigerants 12, 22 and ammonia and are offered in capacities of from 30 through 360 nominal tons. — The Vilter Mfg. Co.

527 Expanded Polystyrene Insulation

Eight page booklet discusses "Uni-Crest" expanded polystyrene insulating material. Product is described, its physical properties listed, standard dimensions are given, and thicknesses for a wide range of temperature conditions are recommended. Photos and drawings illustrate various uses, and simplified techniques of installation and finishing are discussed.—Uni-Crest Div., United Cork Companies.

528 Gas Air Conditioning Units

Six page illustrated brochure, "Go to Sun Valley . . ," describes the comfort, economy and other sales features of the Arkla-Servel "Sun Valley" gas air conditioning line. Includes specifications, dimensions and other details on the four available units for residential use.—Arkla Air Conditioning Corp.

529 Gas Powered Air Conditioning

Air conditioning equipment, powered by gas, has been in successful operation in commercial and industrial buildings. The various refrigeration and dehumidification cycles are described with data on characteristics, application and economic considerations. For guidance of engineers, specifications are given for the various systems that are covered in this comprehensive article.—Industrial and Commercial Gas Section, American Gas Association.

530 Heating, Cooling, Air Conditioning

Thirty-two page catalog 160 covers heat exchangers, supercharger air coolers, industrial and oil field equipment, heating and air conditioning products. Includes a history of company and description of facilities and product resume with installation photos.—Young Radiator Co.

531 Heavy Duty Cooling Towers

The series 4 tower is a custom designed unit for heavy duty air conditioning and refrigeration service. It offers up to 900 tons cooling capacity, efficient design and low profile which combine to offer unsurpassed performance with no orientation limitations. — Fluor Products Co.

532 Hermetic Compressors, Condensing Units

Twenty-eight page catalog 6GL26 presents line of hermetic compressors and condensing units in capacity range of 5 to 150 tons. Included are ratings, physical data, dimensions. — Carrier Air Conditioning Co., A Div. of Carrier Corp.

533 Hermetic Packaged Liquid Chillers

Bulletin 3926 describes new series of "Versare" hermetic packaged liquid chillers in 11 models and which provide small capacity increments up to 60 tons. Features include compact construction, complete controls with eight pilot lights indicating normal operation or cause of emergency shutdown, and protective base allowing accessibility.—American-Standard Industrial Div.

534 Ice Storage System for Air Conditioning

"Ice-Cel" model LHS 12 described in bulletin is a latent heat ice storage system for air conditioning churches, funeral homes, tourist courts, theaters and other applications where heavy loads for a short duration are encountered. — Dole Refrigerating Co.

535 Industrial Thermometers

Bulletin 59-A covers industrial thermometers, available in six standard forms, which offer red-reading mercury tubing with front magnifying lens for greatest visibility. Die cast black aluminum case assures a dust-tight, moisture-tight, rattleproof frame. Choice of 7 or 9 in. sizes in ranges of minus 40 to 1150 F or equivalent in centigrade. — Tagliabue Div., Marshalltown Mfg., Inc.

536 Low Profile Cooling Tower

Series 2 crossflow induced draft cooling tower to meet extremely low profile requirements. Ideal for industrial and commercial installations requiring small to medium cooling capacities. Standard single cell installations range from 60 to 300 tons capacity. — Fluor Products Co.

537 Package Chillers Specification Chart

Technical information in catalog 8023A pertinent to "Heat-X" 20 through 100 ton package chillers, semi-hermetic and direct drive describes inner fin construction of chiller and heat exchanger passages (a patented design feature) for greater cooling capacity with less bulk. Includes mechanical specification identification chart for 25 components. — Dunham-Bush, Inc.

538 Package Chillers

Catalog 8022A describes new "Heat-X" PC compact package chillers for air conditioning systems, drinking water or beverage cooling applications, and industrial water cooling uses. Detailed specifications, capacity curves, dimension data for 11 models, 2 to 30 tons, plus suggested specifications guide included. — Dunham-Bush, Inc.

Use the handy postage-paid reply card on pages 2-59 and 2-60 to request copies you want.

539 Package Liquid Chillers

Bulletin RS10W describes packaged liquid chillers, 7½ through 125 tons, with either direct drive, semi-hermetic or open reciprocating compressor. Can be used for such applications as air conditioning, air washing, cooling of food products and many others.—Curtis Mfg. Co.

540 Packaged Liquid Chillers

Bulletin 510 features packaged liquid chillers and gives engineering details of 10 sizes of chillers used for cooling water and other liquids. Three largest sizes of units have two refrigerating machines each. — Frick Co.

541 Packaged Liquid Chillers

Folders WAC and WWC cover packaged liquid chillers for air conditioning and process industrial cooling. Sizes 3 through 20 tons. — Welbilt Air Conditioning and Heating Corp.

542 Packaged Liquid Chillers

New factory assembled, packaged, direct expansion liquid chiller comes in five models — 50, 60, 75, 100 and 125 tons. Described in form L150.-18PD. Utilizing refrigerant-22, designed for air conditioning applications such as motels, hotels, small office buildings and similar central station use. Each unit factory tested and sealed before shipment. — York Div. of Borg-Warner Corp.

543 Packaged Water Chiller

Twenty page catalog DS-352 describes and illustrates reciprocating "Cold Generator," a complete, factory-assembled refrigeration machine for chilled water systems for comfort and process applications. Twelve sizes with capacity range from 10 to 150 tons. — The Trane Co.

544 Packaged Water Chillers

Described in catalog 91-534 are model DE "Flow Therm" packaged water chillers for air conditioning and process cooling. Construction details, general and engineering specifications, capacity data given for nine models in the line, capacities 20 through 125 tons. — Acme Industries, Inc.

545 Process Refrigeration

Bulletin 105 describes "No-Frost" refrigeration which produces and holds temperatures below zero with continuous automatic operation, never shuts down for defrosting. Uses narrow spread between refrigerant and room temperature, maintains high humidities in produce holding and crop precooling. Handles high moisture loads as in fresh meat chilling, gives continuous process freezing. — Niagara Blower Co.

546 Reciprocating Compressors

Information on reciprocating type refrigerants 12 and 22 compressors is given. Offered in capacities of from 20 hp through 200 hp, these high speed 2, 4, 6, 8, 12 and 16 cylinder machines are

described in a 12 page bulletin. Construction features, dimensional data, application possibilities are included.—The Vilter Mfg. Co.

547 Refrigerant Sealer

Refrigerant sealer for tubes and liner entries is described and illustrated. Unretouched photos compare "Wat-R-Bar" with conventional sealing compounds in 45,000 high frequency freeze-thaw cycling test. Reveals new sealant's long resistance to vapor and temperature extremes.—Presstite Div., American-Marietta Co.

548 Refrigerated Purging

Twelve page guide tells how air in a refrigerating system affects efficiency; how to tell if purging is needed; comparison of manual and automatic refrigerated purging. Operation of refrigerated purger explained. Location of purge connections is discussed, as well as installation and operation. Two pages of comments by purger users.—Armstrong Machine Works.

549 Refrigeration Instruments and Valves

Catalog 76-R shows entire line of refrigeration gauges and thermometers, as well as regulating valves and solenoid valves.—Marsh Instrument Co., Div. of Colorado Oil and Gas Corp.

550 Remote Air Conditioners

New catalog gives capacity, dimensional and specification data on new line of thin remote type room air conditioners for use with hot and chilled water. Floor models measure only 8⅜ in. from front to back; ceiling models also available. Tap-wound motors with pushbutton controls are standard equipment.—Fedders Corp.

551 Remote Air Cooled Condensers

Catalog 635 describes dual purpose air cooled condenser, exhaust, and/or heating and ventilating equipment. "Aircon" units provide ultimate flexibility by combining refrigerant condensing with heating and ventilating. Catalog covers applications, selection data, engineering specifications. — McQuay Inc.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

552 Sealers and Vapor Barriers

Bulletin describes sealers and vapor barriers for air conditioning and refrigeration applications which exhibit good flexibility, excellent adhesion over a wide temperature range and low odor levels. Formulations for special application requirements are manufactured to customer's orders.—Witco Chemical Co., Inc.

553 Seamless Tubing, Extruded Shapes

Eight page folder on packaging is designed to illustrate the ability of the manufacturer to devise packages particularly suitable to the customer's materials handling facilities. Method of construction of each package is described, as well as its use and total capacity.—Wolverine Tube, Div. of Calumet & Hecla Inc.

554 Stud Driver Fastening System

Form ASD-01 describes and illustrates tools, power loads, studs and related equipment for powder actuated fastening systems.—Remington Arms Co., Inc.

555 Thermostatic Expansion Valves and Controls

Catalog contains installation, application, tabular and descriptive information for sizing and selecting thermostatic expansion valves, refrigerant distributors, solenoid valves, suction line regulators, hot gas bypass valves, float switches, high side float valves, evaporator controls and reversing valves available for all refrigerants and for all types of applications.—Alco Valve Co.

556 Valves, Driers, Strainers, Indicators

Literature is available on shut-off, relief and flow check valves; sealed and cartridge type driers and filter-driers; sealed and cleanable strainers; liquid, liquid level and moisture liquid indicators. For refrigeration, air conditioning, industrial applications. — Henry Valve Co.

557 Water-to-Air Heat Pumps

Sixteen page bulletin DS-368W describes and illustrates features of water-to-air heat pump which provides heating, cooling, dehumidifying, filtering and air circulation from single package. Five factory-assembled, ready-to-install sizes from 3 to 15 tons. Heating capacities, 34,500 to 206,000 Btu per hr. — The Trane Co.

Sound & Vibration Control

558 Acoustical Panels

Bulletin 47 illustrates and describes perforated metal lay-in panels for modern acoustical ceilings and shows typical installations. Panels meet federal specifications for incombustibility and have a glare-free baked-on finish which is easily washed and is not affected by moisture or any probable change in temperature.—Diamond Mfg. Co.

559 Damping Compound

Bulletin K17C covers "Vibrodamper," a new viscoelastic material which reduces structurally borne noise and vibration. Provides vibration decay rate of 35-55 db, is resistant to alkali, grease, gasoline and aliphatic oils, is unaffected by ozone or sunlight, and dries to smooth, attractive finish. Nontoxic and nonflammable.—The Korfund Co., Inc.

560 Duct Silencers

New eight page pamphlet lists all types of silencer products for air conditioning, heating and ventilating equipment. Gives dimensional data, certified sound attenuation and pressure drop. All silencer products are guaranteed and bonded. — Elof Hansson, Inc.

561 Expansion Joints, Flexible Couplings

Twelve page bulletin AD-137 on rubber expansion joints, spool type, U-type, tapered and offset types also covers "Teflon-lined" rubber expansion joints, all "Teflon" bellows type expansion joints and flexible couplings. Various types, sizes, dimensions and other technical data given. — Garlock Inc.

562 Flexible Metallic Connectors

All sizes and types of flexible metallic connectors from ½ to 12 in. ID are illustrated. Specifications of temperature, pressure, etc. for both bronze and stainless steel in corrugated and interlocked metal hose included. Uses for correcting pipe misalignment, absorbing pipe expansion and dampening vibration described. — Pennsylvania Flexible Metallic Tubing Co.

563 Functional Ceiling

Twelve page bulletin 138 describes completely self-contained suspended ceiling offering radiant panel heating, cooling and acoustic control. — Burgess-Manning Co., Architectural Products Div.

564 Guide to Vibration Control Specifications

Six page bulletin F2D gives information on how to write vibration isolation specifications for air conditioning and related equipment. It contains a definitive treatment of the factors involved in the selection of various isolation media commercially available and has a selector chart designed to simplify writing specifications.—The Korfund Co., Inc.

565 Hangers for Piping, Equipment

High deflection "Vibro-Hangers" eliminate vibration and noise from suspended equipment and piping by utilizing a helical steel spring as the vibration isolating medium. The springs will withstand high temperatures without permanent set, and low temperatures without losing their resilience.—The Korfund Co., Inc.

566 Noise, Vibration Control in Pipelines

New bulletin 866 describes, illustrates "Soundzorber" wire reinforced rubber pipe designed to reduce noise transmission; prevent vibration transmission; absorb water hammer in water, chemical, sewage and other liquid and semi-liquid pipe lines. Available for both 150 and 250 lb service. Either full-flanged ends or with IPT male or female fittings.—General Rubber Corp.

567 Pad Type Isolation

New two page bulletin PT-11 describes improved "Shear Flex" cross-ribbed, neoprene pad type isolation material. — Vibration Mountings and Controls Inc.

568 Quiet Motors

Bulletin describes "Silent Service" low vibration quiet motors and outlines features which make them particularly applicable to ventilating and air conditioning systems where low noise levels and elimination of structure and duct-borne vibration are important. Increase in dependability and bearing life resulting from precision balance and low vibration are pointed out. — General Dynamics Corp., Electro Dynamic Div.

569 Rubber Expansion Joints

Rubber expansion joints for sound and vibration elimination and conveying air or liquids under vacuum or pressures up to 125 psi. Temperatures to 200 F, sizes 2 to 96 in. Special construction available for other than normal operating conditions. — Goodall Rubber Co.

570 Selection Chart for Silencers

New "Uni-Silencer" selection chart printed on both sides of heavy, plastic coated card fitting any standard binder, illustrates with three data charts high pressure systems, centrifugal fan pressures, pressure drop vs. airflow, gives the different types of models available. Explains how to select a silencer, gives examples of efficiencies. — Elof Hansson, Inc.

571 Sound Control Curb

"QT" sound control curb is new pre-fabricated, unit designed to replace conventional power exhauster curbs, and described in bulletin 601-SC. Reduces exhauster sound power at inlet 90 percent, decreases air moving efficiency only 10 percent. Available for both direct and belt drive units.—Jenn-Air Products Co., Inc.

572 Sound Control Products

New 20 page catalog 61 contains listing of sound absorptive, sound isolating and special purpose acoustical materials. Illustrates all products, giving general and technical descriptions including sound absorption, sound transmission loss, and other functional data. Includes listing of special purpose acoustical products.—Elof Hansson, Inc.

573 Sound Trap Selection

Twenty-four page selection manual on "Aircoustat" sound traps describes them and gives selection, installation and ordering information.—Koppers Co., Inc., Metal Products Div.

574 Stainless Steel Bellows Data

Comprehensive catalog which includes application and engineering data on laminated stainless steel bellows. Included is data on expansion compensators, expansion joints, vibration ab-

Over 750 descriptions of catalogs, bulletins and other data available to you without obligation on request are described in these pages.

sorbers, flexible connectors and pipe guides.—Keflex Mfg. Div. of U. S. Flexible Metallic Tubing Co.

575 Steel Spring Mountings

New two page bulletin C-10 describes series C "Spring Flex" cast telescoping housings containing one or more steel springs, leveling feature, resilient guides. Static deflections to 1½ in., capacities 25 to 15,600 lb. — Vibration Mountings and Controls Inc.

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576 Vibration Eliminators

Bulletin VE-313 gives specification, construction, advantages and typical installations of "V.E.'s", used to dampen noise and vibration in piping of air conditioning and refrigeration systems. They have a flexible core of tin-bronze, and a tin-bronze wire braid. Fittings are copper tube ends. Sizes ⅛ through 8 in. — Anaconda Metal Hose Div., Anaconda American Brass Co.

577 Vibration and Sound Absorber Units

Units are engineered to eliminate vibration and noise emanating from water pump, air conditioning, heating and ventilating units, etc. Sizes 1½ through 12 in., lengths as required. — Goodall Rubber Co.

Tools & Machines

578 Air and Electric Power Tools

Seventy-four page catalog covers "Sioux" air and electric impact wrenches, drills, screwdrivers, nut runners, sanders, grinders, electric polishers, flexible shafts, portable saws, valve grinding machines, abrasive discs. Of special interest are impact wrenches for removing and replacing bolts on condenser heads, heat exchangers, boilerfeed pumps, controls, portable electric pipe threader. — Albertson & Co., Inc.

579 Automatic Contour Cutter

Machine described in bulletin makes straight, mitre and contour cuts on pipe without use of cams, templates or man-made forms of any kind. Oxy-acetylene torches are used as cutting medium for carbon steel pipe and the tungsten arc process is used for aluminum, alloy and stainless steels. — Steffan Mfg. Corp.

580 Automatic Hole Cutters

Machines described in bulletin cut a true circular opening in pipes or tanks at an angle perpendicular to the pipe or at angles up to 45 deg. A number of sizes and models are available to satisfy any hole cutting job in plate, pipe or tanks. — Steffan Mfg. Corp.

581 Bevel Land Grinder

Bevel land grinder uses an electric or air powered grinder to smooth pipe cuts and place the land on bevels. Leads to easier, faster, more positive alignment of pipe and to better quality welds. Available in two models, one for 6 to 12 in. pipe, the other for 14 to 30 in. pipe.—H. & M. Pipe Beveling Machine Co.

582 Concrete Drilling System

Eight page bulletin describes concrete drilling machines for holes 3/16 to 14 in. in diameter in reinforced concrete, tile, marble, terrazzo, brick, asphalt, and granite. Features, uses, and characteristics of the equipment are described.. — Molco Drilling Machines, Inc.

583 Elbow Cheek Cutting Machine

New "Cheekmaster" machine for sheet metal shops turns out cheeks for rectangular elbows. Can be set to produce cheeks having radius of from 3 to 12 in., opening from 3 to 20 in. No layout required. Taper elbow cheeks, as well as circles, can be turned out. — Duro Dyne Corp.

584 Electric, Pneumatic Power Tools

Eight page industrial-automotive catalog contains descriptions, illustrations and detailed specifications on portable electric and pneumatic power tools. Includes wood and metal working tools, such as "Skilsaw" worm drive and top handle saws, jig and reciprocating saws, planes, routers, belt sanders, drills, screwdrivers, shears, hammers and die, portable and bench grinders. — Skil Corp.

585 Fastening System for Concrete, Steel

Ten page bulletin describes "Ammo" on-the-job system for fastening into concrete and steel. The equipment and accessories are shown, and numerous applications explained. — Ammo-Drive Pins, Inc.

586 Flexible Shaft Machines

Catalog shows machines used for grinding, sanding, polishing, buffing, rotary filing. Charts are given for shaft, couplings, etc.—Remington Arms Co., Inc.

587 Hand Tools for Pipe

Twelve page quick reference catalog NP1057-A of hand tools for pipe gives brief specifications and available sizes for cutters, threaders, ream-

ers, chain wrenches, and bench and tripod vises. Includes size tables for razor blade cutter wheels, double threaded throat pipe and bolt dies plus replacement parts. — Reed Mfg. Co.

588 Heavy Duty Pipe Wrenches

"Pipemaster" wrenches have one double action spring for speedy grip and release, plus calibration on the hook jaw for pre-adjustment. All sizes from 6 through 48 in. Wrenches are factory job-tested. — The Erie Tool Works.

589 Hinged Cutter for Pipe, Chain Wrench

Catalog sheet WA-HC-760 describes hinged cutter for steel or cast iron pipe and companion chain wrench. Five sizes of cutters cover range from 2½ to 12 in. pipe, while the all-purpose chain wrench is available in handle lengths from 10 to 60 in. for pipe sizes from ⅛ to 8 in. — Reed Mfg. Co.

590 Hydraulic Lift for Men, Materials

"Sky Witch" portable, hydraulic lift for elevating materials and men to job height makes overhead construction and maintenance work easier. Heights up to 30 ft with standard models; lifting capacities up to 2000 lb. Working height may be varied up or down anywhere in working range. Six basic models with numerous options. — Charles Machine Works, Inc.

591 Industrial Drilling

Bulletin 321 describes diamond drilling equipment and its many uses in today's industrial world. Contains information on the two types of drills offered, drill specifications, sizes of bits, and accessory attachments. — E. J. Longyear Co.

592 Light Weight Pipe Bender

Four page bulletin E-249 describes new 777 light weight segment bender for 1¼ through 4 in. steel and aluminum pipe. Weighs only 65 lb exclusive of shoes. With a few optional parts it also makes 90 deg one-shot bends in ½ through 2 in. pipe sizes. Hand or power pump operated.—Greenlee Tool Co.

593 Mechanized Hand Cutter

Machine described in bulletin is designed primarily to cut true circular openings from 16 to 72 in. diameter in tanks and can also be used for straight, irregular or circle cutting on flat plates. Lightweight portable unit. — Steffan Mfg. Corp.

594 More than 60 Timesaving Tools

Bulletin E-240 covers more than 60 timesaving tools, including light weight hydraulic pipe benders; hydraulic pipe pushers; portable, high pressure hydraulic power pumps; power bits; pipe bits; auger bits; chisels and allied tools.—Greenlee Tool Co.

595 On-the-Job Communication System

Bulletin A17 covering three all transistor two-way radios includes detailed data and specifications on two models of a completely portable pocketsize walkie-talkie for routing and adjusting operations and a base station model for office or mobile operations. Operating on the same frequencies, they can be used in conjunction to provide an on-the-job communication system. — Osborne Electronics Corp.

596 Pipe Cutting and Beveling Machine

Model O machine for cutting and beveling 1½ to 4 in. pipe features fast, easy mounting and employs same split gear horseshoe principle which characterizes all other H. & M. machines. Design enables operator to place machine on continuous pieces of pipe. Completely portable, can be moved from job to job, shop to field.—H. & M. Pipe Beveling Machine Co.

597 Pipe Cutting and Beveling Machines

Seven pipe cutting and beveling machines are available to prepare 1½ to 36 in. pipe for welding. The "Out-of-Round" accurately cuts irregularly shaped pipe. The "Shape Cutter" employs templets to cut various shapes for the fabrication of tees, ells, other designs.—H. & M. Pipe Beveling Machine Co.

598 Pipe Tools

Twenty-four page price catalog covers full line of hand and power tools. Contains complete descriptions of "Ridgid Work-Saver" pipe tools, including sizes, weights, capacities and prices. — Ridge Tool Co.

599 Pipe and Tubing Cutters

"Pipemaster" tubing cutters, models 4T, 3T and ITS, for cutting copper, aluminum, brass, thin wall conduit and plastic, described in bulletin. Capacities are, respectively, 1½ to 4⅛ in. OD, 1⅛ to 3⅛ in. OD, and ⅛ to 1 in. OD. — The Erie Tool Works.

600 Portable Equipment Lift

Bulletin HST-HP offers "Hoist-It" which permits two men to lift equipment weighing 4000 lb to heights of 24 ft. Consists of telescoping posts, cradles and cable hoists, does not have to be anchored, can be used in finished rooms without damage to ceilings. Easily disassembles for storage. — Hastings Air Control, Inc.

601 Portable, Heated Asphalt Roller

"Hot Witch" roller paves/patches asphalt quickly and easily using butane or propane for all kinds of street patching and small paving jobs. This small, heated roller is easily portable, heats quickly to temperatures up to 1400 deg, gives compaction equal to 5 tons. — Charles Machine Works, Inc.

602 Quick Guide to Pipe Tools

Handy, pocket-sized guide to full line of "Ridgid Work-Saver" tools. Brief product descriptions and time-saving index in this 16 page guide, plus reminder sheet for ordering tools. — Ridge Tool Co.

603 Snap-Around Ohmmeters

Catalog A655 describes complete line of "Amprobe" pocket-size, snap-around, volt-amp ohmmeters. Information pertaining to free trial plan included. — Pyramid Instrument Corp.

604 Stud Welding Data

Twelve page brochure G9-18R gives information about portable and bench stud welding units and explains "Stored Energy" principle. All stock machines and welding guns are pictured, load strengths of studs are listed, numerous applications illustrated and described. Two page stud selection chart is included. — Omark Industries, Inc.

605 To Cold Draw Tee from Tubing

Portable "Pipemaster" tee turner designed to cold draw a tee from copper tubing within 5 minutes. Reduces need for tee fittings and number of soldered joints at each tee from three to one. Can be used on variety of tube sizes from 1¼ to 4 in. including DWV, M, L and K. — The Erie Tool Works.

• *Your comments on this Trade Literature Supplement to Heating, Piping & Air Conditioning are invited.*

606 Tools for Pipefitters

Bulletin H-308 contains detailed information on the most widely used tools in the woodworking line. Of particular value to pipefitters, the booklet describes over 75 tools including power, solid-center, auger, expansive and car bits; chisels; gouges; screwdrivers, and other tools.—Greenlee Tool Co.

607 Trenchers

"Ditch Witch" trencher available in 7 to 30 hp models to dig from 4 to 16 in. wide and up to 6 ft deep. Used for service lines for gas, water, electricity, telephone, cathodic protection, substation ground wires, street lighting, traffic signal installations, sprinkler systems, sidewalk undercutting, foundation footings, sewer and septic tank laterals. — Charles Machine Works, Inc.

608 Vises

Catalog folder MV-1156 illustrates line of standard and special purpose machinists' vises in 3 to 8 in. jaw widths, and renewal parts. Covers combination toolmakers' sheet metal or steamfitters' vises as well as home workshop or utility models. — Reed Mfg. Co.

Unitary Air Conditioning

609 Air Conditioning and Drying Systems

New 16 page bulletin K-160, "Dollars Out of the Air," describes latest model C "Kathabar" air conditioning and drying systems. Used to stop condensation, speed drying and other processing operations; obtain subfreezing dewpoints; and make air sterile to hospital standards. Also covered is new "Kathabar" climate control prefabricated standard test rooms.—Surface Combustion Div. of Midland-Ross Corp.

610 Air Conditioning and Heating

Bulletin 404 describes new "Centralaire" line of central station air conditioning and heating units available in 15 sizes with heating and cooling coils, humidifiers, face and bypass dampers, air intake mixing boxes, with or without inlet dampers, and various type filters. Data aids in sizing, selection. — Airtherm Mfg. Co.

611 Air Conditioning Industrial Plants

Four page brochure 76-4263 "Air Conditioning For Industrial Plants . . . Costly Frill or Valuable Investment?" presents the sound economic justification behind installation of air conditioning in modern industrial plants. Features graphs and actual cost figures based on a comprehensive industrial survey. Compact, easy-to-read story especially designed for busy executives.—Minneapolis-Honeywell Regulator Co.

612 Air Cooled Split System Equipment

Complete line of air cooled split system equipment ranging in capacities from 3 to 20 tons. — United States Air Conditioning Corp.

613 Air Handling Equipment

Sectional constructed air handling units for cooling, heating, ventilating, humidifying, dehumidifying and filtering, either single or multiple zone. — United States Air Conditioning Corp.

614 Air Handling Units

Bulletin SW-HP describes "Stow-A-Way" fan-coil units designed for heating and cooling individual motel, hotel and hospital rooms with heating boiler and cold city or well water. Equipment features all copper solder bonded six row coils which prevent fins and tubes from separating due to alternate hot and cold water flow. — Hastings Air Control, Inc.

615 Air Units

One page bulletin describes air units for any temperature from 38 to 300 deg; all humidities; reheat with steam, water or electrical elements as required. Available in sizes 2, 3, 5, 7½ and 15 tons. Units can be furnished with copper tube, steel hot galvanized, or stainless steel cooling coils.—Rempe Co.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

616 Central Station Air Conditioning

Central station draw-through "Multitherm" air conditioning units, in both horizontal and vertical arrangements, are fully covered in 40 page catalog 1309. Capacity tables, selection guides, coil data, dimensions, and sample problems included. Sprayed coil as well as general purpose "Multitherms" described. — Clarage Fan Co.

617 Central Station Air Conditioning Unit

Bulletin AC-100 introduces a new line of "Kennard/Nelson" central station air conditioning units which feature a choice of "built-in better air"—unit, automatic, renewable media, electrostatic and combinations of filters. Possible to select complete packaged units with coils, accessories, filters, even traps without referring to separate bulletins.—American Air Filter Co., Inc.

618 Compact Air Conditioners

Four page folder describes new EC air handling unit which provides efficient, quiet cooling and heating for shops, small stores, restaurants, offices and apartments. Technical data given on each of five models. Units available in three styles — horizontal "De Luxe" and "Standard," and vertical "Standard." — Thermal Engineering Corp.

619 Dual Purpose Air Handling Unit

Twenty-four page bulletin DD-5 describes large central station equipment for dual duct or multizone air conditioning systems complete with fans, filters, cooling and heating coils, automatic dampers, sprays, pumps, etc.—Buensod-Stacey Corp.

620 Electronic Packaging of Fasteners

"Fasten-Pak" electronic packaging works in one operation which counts assembly materials, fills, seals and prints four lines of copy on kraft opaque or translucent material, identifying packaged items. Excellent for KD and installation products using screws, nuts, bolts, washers, etc. Packages fasteners faster and better, saves time and money. — Mid-Continent Screw Products Co.

621 Heating and Cooling

Bulletin YR-161 gives information on commercial and industrial weatherproofed heating and cooling packages. Over 40 sizes, up to 40 tons cooling and 1 million Btu heating, available in four different series. Complete combination heating and cooling packages, heating units with evaporator coils, heating units only, and cooling units only available. — Mammoth Industries, Inc.

622 Industrial Air Conditioning Unit

Bulletin 122 describes air conditioner which obtains control of humidity by using saturated air at precise temperature and fixing the dew point of air leaving the saturation chamber, thereby providing control of humidity by thermostats alone and assuring reliability for critical conditions. Unit capacities, 600 to 20,000 cfm. — Niagara Blower Co.

623 New Roof Top Unit

Bulletin R3H describes new roof top unit now available in 7½ and 10 ton sizes with either heating and cooling sections or cooling section only. Gas or electric heat. — Curtis Mfg. Co.

624 Packaged Air Conditioners

Complete, year 'round air conditioning system in one compact unit is available in model PAC packaged air conditioner. Details on line, along with construction features, specifications, dimensions and physical data are given in catalog 570 A. Twenty models, 20 to 60 tons. — Acme Industries, Inc.

625 Packaged Water Chillers

"Uni-Chiller" packaged water chillers for refrigerant 22 in sizes from 25 through 125 nominal tons are described. All major components, including VMC reciprocating compressor, flooded or direct expansion chiller, condenser and control package, illustrated and described in eight page bulletin.—The Vilter Mfg. Co.

626 Registers, Grilles and Diffusers

Sixty-eight page catalog A for 1960 on air conditioning registers, air conditioning grilles, air conditioning diffusers, pressure dampers and accessories. The index includes products for residential-gravity, and commercial and industrial. — United States Register Co.

627 Remote Air Conditioners

Bulletin 35 describes "Seazonaire" remote air conditioning units for multi-room installations, available in six standard types, floor or ceiling mounted, finished cabinet or recessed, capacities from 210 to 1260 cfm. Included are construction details, specifications and installation dimensional drawings.—Marlo Coil Co.

628 Remote Air Conditioning Units

Eight page bulletin 230 gives complete dimensional and capacity information about new line of remote horizontal air conditioning units. Units can be supplied for both heating and cooling using steam, water, and direct expansion. Cooling capacities range from 2 to 15 tons.—Bohn Aluminum & Brass Corp., Danville Div.

629 Remote Waterless Condensing Unit

Type 938 remote waterless condensing units available in 2 to 5 ton nominal sizes have new design features such as large extra capacity centrifugal blower to insure quiet and dependable operation. All controls, other than thermostat, are inside condensing unit. — Mueller Climatrol Div. of Worthington Corp.

630 Roof Heating and Cooling Unit

Four page catalog 48B1 describes versatile 48B commercial "Weathermaker", a heating and cooling unit designed to be installed on the roof of one story buildings. Completely self-contained, it consists of an air cooled refrigeration

section, gas fired heating unit and fan section.—Carrier Air Conditioning Co., A Div. of Carrier Corp.

631 Roof Top Air Conditioner

"Skyline" compact, self-contained, factory charged, summer-winter air conditioner designed for roof top installation, requires only electric power, gas supply and short duct connections to install. Produces 90,000 Btu per hr of cooling using refrigerant-22 and has heating input of 200,000 Btu. Described in form PM 477-S. — York Div. of Borg-Warner Corp.

632 Room Conditioners

Catalog 250 describes new line of "Bohn-Aire" fan-coil units offered in 200, 300, 400, 500, and 600 cfm sizes in four cabinet styles with complete accessories. Water and direct expansion capacity data and dimensional drawings given. — Bohn Aluminum & Brass Corp., Danville Div.

633 Self-Contained Air Conditioners

Self-contained air conditioners complete with built-in evaporative condensers, water cooled condensers or for use with air cooled condensers, ranging in size from 3 to 60 tons. — United States Air Conditioning Corp.

634 Self-Contained Air Conditioners

Model SWAW and WAA water and air cooled, self-contained air conditioners with matching remote air cooled condensers described in bulletin WS 103. All models available with heating coils, in sizes 3 through 35 tons. Most models have available plenums. — Welbilt Air Conditioning and Heating Corp.

635 Through-the-Wall Air Conditioner

Self-contained through-the-wall "Airditioner" provides year 'round heating or cooling by utilizing a fully hermetically-sealed refrigerant cycle combined with heating coils for connection to hot water or steam systems. Models are available with electric heating element if desired. Two sizes, 1 and 1½ ton.—Modine Mfg. Co.

636 Unitary Air Conditioning

Catalog section 60 describes articulated units of unlimited capacities through and beyond 100,000 cfm, designed and manufactured to incorporate all the equipment necessary for a central station as required. Optional indoor or outdoor weatherproof construction.—Air & Refrigeration Corp.

637 Vibration Controls

Four page bulletin VAC-13 describes application of proper vibration controls as applied to air conditioning and heating problems encountered in modern buildings. — Vibration Mountings and Controls Inc.

638 Cabinet Unit Heaters

Bulletin 1403 contains construction and performance specifications on cabinet unit heaters for commercial and public buildings, institutions, in individual rooms, corridors and lobbies, blanketing entrances. Available in 375 to 1530 cfm and 25,100 to 124,800 Btu, these heaters feature 16 gauge cabinets, factory-made coils, and quiet direct drive fans. Hot water or steam. — Airtherm Mfg. Co.

639 Classroom Heating, Air Conditioning

Eight page booklet of architect sketches shows different applications of "Comfort Curtain" system for heating, ventilating and air conditioning classrooms. Shows heater rooms and heating equipment integrated into the design of schools and libraries.—Lennox Industries Inc.

640 Direct Fired Heaters

Bulletin C-158 gives engineering, operating and dimensional information on commercial and industrial "Commercial-Aire" direct fired forced air heaters, available in five different series for all fuels except coal. Charts included for solving problems with individual units up to 2 million Btu. — Mammoth Industries, Inc.

641 Direct Fired Make-Up Air Units

Form 552-1-60 on "Champion" MA series direct fired make-up air units gives large selection of packaged, factory wire and fired units of from 8000 to 150,000 cfm, DWDI fans for quiet operation. Features in-line gas burners, 25 to 1 turndown ratio, weatherproof casing. Meets insurance underwriters requirements.—National Heater Co., Inc.

642 Electronic Packaging of Fasteners

"Fasten-Pak" electronic packaging works in one operation which counts assembly materials, fills, seals and prints four lines of copy on kraft opaque or translucent material, identifying packaged items. Excellent for KD and installation products using screws, nuts, bolts, washers, etc. Packages fasteners faster and better, saves time and money. — Mid-Continent Screw Products Co.

643 Gas Fired Fresh Air Supply Heaters

Bulletin GFAS-60 describes direct gas fired fresh air supply heaters of unitized construction, factory pre-wired and piped ready for installation. They are made in five sizes suited for wall or roof inlet and offer up to 50,000 cfm and

4,500,000 Btu per hr output. — L. J. Wing Mfg. Co., Div. of Aero Supply Mfg. Co., Inc.

644 Gas Fired Heaters, Duct Furnaces

General catalog SA-5900 describes line of gas-fired unit heaters, duct furnaces, heavy duty heaters, blower fans and new motorized flue exhauster. Dimensions, performance data and application suggestions are included. — Reznor Mfg. Co.

645 Gas Fired Unit Heaters

Bulletin B-1711 gives application data for propeller type gas fired unit heaters, AGA approved for use with natural, mixed or LPG gases. Small, lightweight unit design allows maximum headroom. Sizes from 25,000 through 310,000 Btu per hr input. Special port and burner tube design insures combustion efficiency, minimum maintenance. — Warren Webster & Co., Inc.

646 Gas Fired Vertical Unit Heaters

Gas fired industrial type vertical delivery unit heaters can be installed up to 36 ft above floor, are available in 300,000, 450,000, and 600,000 Btu per hr sizes. Largest weighs but 680 lb. All have stainless steel burners. For straight heating or on applications where outside air is introduced for make-up. Units are AGA approved. — Modine Mfg. Co.

647 Industrial Direct Fired Heaters

Two bulletins describe models AT and OG series of industrial space heaters. Gas, oil or combination fuel burners with push-button changeover. Outputs from 400,000 to 2,000,000 Btuh. Rugged constructions with completely enclosed burner, adaptable for space heating, ventilation, make-up air, process heating, air conditioning.—Lennox Industries Inc.

648 Large Volume Ventilators

Catalog 575 describes line of "Seasonvent" volume ventilators for all heating and ventilating applications such as churches, auditoriums, libraries, and similar institutions where smooth and quiet air handling is a primary design consideration. Features, applications, specifications, selection and dimensional data included. — McQuay Inc.

649 Overhead Gas Heater

Bulletin describes new "Three-Sixty" overhead gas heater. Dimensions, performance data and application suggestions included. — Norman Products Co., Div. of John J. Nesbitt Co.

650 Perimeter Schoolroom Heating, Ventilating

Bulletin describes new "Inn-A-Wal" counterflow, gas fired, forced air, perimeter schoolroom heating and ventilating system designed for installation in separate heater room. Typical installations illustrated and diagrammed. Dimensions and performance data included. — Norman Products Co., Div of John J. Nesbitt Co.

651 Power Roof Ventilators

Bulletin PRV-60 describes new "Jet" line of power roof ventilators available in two interchangeable discharges — straight through and mushroom top. Magnetic damper locks prevent chatter, rubber lip rings make unit leakproof. Ten fan and 12 motor sizes from 600 to 51,000 cfm. — L. J. Wing Mfg. Co., Div. of Aero Supply Mfg. Co., Inc.

652 Schoolroom Heating, Ventilating

General catalog gives information on gas fired forced air schoolroom heating and ventilating system. Comparison of steam and hot water heat to air distribution presented. Schoolroom needs in heating and ventilating discussed. Also shown are "Three-Sixty" unit heaters and "Southerner" horizontal furnace with performance data and mechanical specification. — Norman Products Co., Div. of John J. Nesbitt Co.

653 Space Heaters

Bulletin 580-12C describes features of "Counterflo" space heaters ranging in output from 400,000 to 2,000,000 Btu per hr for a wide range of industrial applications. Drawings, specifications and other engineering data included.—Dravo Corp.

654 Unit and Blast Heaters

Revised catalog GP 956-R4-1-60 describes "Grid" cast iron steam heat transfer surface unit heaters (both horizontal and down blow), blast heaters and radiators, and discusses corrosion in unit heaters. Describes and illustrates one piece contruction high test cast iron heating sections, together with air distribution charts, heating capacities, conversion tables, etc.—D. J. Murray Mfg. Co.

655 Unit Heaters

Unit heater model C described in bulletin is streamlined and attractively finished to harmonize with modern commercial and industrial installations. Heating element of one piece seamless copper tube with square fins provides maximum radiation. High efficiency fans offer greater capacity with less noise. Thirty-one sizes. — Buffalo Forge Co., Air Handling Div.

656 Unit Heaters

Catalogs on complete line of horizontal, down-blow and cabinet unit heaters for use with steam or hot water. Also complete line of gas fired models. Full working data on capacities and dimensions.—Fedders Corp.

657 Unit Heaters

Eight page bulletin UH858 on unit heaters presents information, illustrations of gas fired and steam or hot water unit heaters for variety of applications. Sound rating recommendations for typical environments, guides for unit selection, installation, location are provided with data on two-speed motor operation, velocity nozzles, vertical delivery. — Grinnell Co., Inc.

658 Unit Heaters

1961 catalog includes complete line of gas unit heaters, gas and oil hot water and steam boilers, gas and oil furnaces, domestic and industrial gas conversion burners, and air conditioning equipment. — Roberts-Gordon Appliance Corp.

659 Unit Heaters

Bulletin B-1721 gives description and engineering data for three basic heater types for steam or hot water system application — horizontal and vertical delivery and new "Power-Throw" type for special applications where long heat throw is required. Low outlet temperature models available for steam pressures not exceeding 30 lb. — Warren Webster & Co., Inc.

660 Unit Heaters

Unit heaters, available in six models in capacities 60,000 to 717,000 Btu, are described in bulletin 60. Unit heater is completely dependable in service where corrosive atmospheres are encountered. Uses directional finned radiation. — Wilson Engineering Corp.

• *When sending your requests, please be sure to type or print your name and address clearly.*

661 Unit Heaters, Duct Furnaces

Sixteen page booklet presents a complete selection of floor-mounted and suspended unit heaters, duct furnaces and heavy duty blower heaters. — Janitrol Heating & Air Conditioning Div., Midland-Ross Corp.

662 Unit Heaters-Ventilators

Forty-four page catalog DS-327A describes and illustrates "Torrivent" large space heating and ventilating unit for institutional, commercial and industrial applications. Equipped with high efficiency centrifugal fans. There are 102 standard units in 17 basic sizes which deliver air volumes from 600 to 54,000 cfm. Heating capacities from 20,700 to 3,846,800 Btu per hr. — The Trane Co.

663 Unit Ventilators

Engineering data catalog B-2200 describes basic unit in complete system for steam, hot water, electric heating of schools. New unit ventilator circulates warm or cool filtered air as required. Special design air blending damper controls mixture of outdoor and indoor air, assures positive closure against leakage, heat waste. — Warren Webster & Co., Inc.

Valves, Fittings & Flanges

664 Automatic Regulating Valves

Bulletin 954 describes 35 different models of pressure reducing, float and lever valves, temperature regulators, back pressure and relief valves. — Klipfel Valves, Inc.

665 Backing Rings

Bulletin 58-2 and three leaflets describe types C, CC, and CCC backing rings for pipe welding, with dimensions, specifications and other information. How they are used and how the welding procedure is simplified are explained. — Robvon Backing Ring Co.

666 Ball Valve

Two page catalog bulletin 611 details operation of ball valve, shows cutaway views, ratings, applications, advantages, and describes specific design features and dimensions. — The Lunkenheimer Co.

667 Blow-Off Valves

Twenty page bulletin B427 describes seatless blow-off valves for boiler working steam pressures to 400 psi, provides specifications, construction details, weights, dimensions, operation and servicing instructions. Double-tightening valves for working steam pressures to 300 psi are also described. — Yarnall-Waring Co.

• *See the front cover of this Trade Literature Supplement to Heating, Piping & Air Conditioning for the index by products to these listings.*

668 Branch Connection Fittings

Bulletin TF-1 on "Fishmouth," new way to make branch connections. Fully machined to shape from schedule 40 pipe, fits perfectly with run pipe. Sizes 2 in. and up. "W-S TeeLet," sizes ⅛ to 1½ in., designed to give low cost connections for high pressure, small branch pipe applications. — H. K. Porter Co., Inc., Forge and Fittings Div., W-S Fittings Works.

669 Bronze Gate Valves

Brochure illustrates and describes features of 200 and 300 lb bronze gate valves with stainless alloy seat rings and renewable discs. Rising and non-rising stem patterns are shown. Working pressures, dimensions, materials and service recommendations included. — Crane Co.

670 Bronze Gate Valves

Patented 200 lb bronze gate valve in which the nickel alloy seat rings can be replaced in from 7 to 10 minutes without removing valve body from the line are described in circular V-126. Simplicity of replacement is illustrated step-by-step. Valves available in rising and non-rising stem construction, sizes ½ through 2 in. — The Fairbanks Co.

671 Bronze Gate Valves

Bulletin 573 shows many new construction features of 125 lb gate valve in cylindrical body construction. Cutaway shows construction and

operation while additional features include new hex end design, "Kenalloy" stem and handwheel. Conforms to federal specifications WW-V-54 type 2 class A. — Kennedy Valve Mfg. Co.

672 Bronze and Iron Body Valves

Circular V-6 covers bronze and iron body gate, globe and check valves used in heating, piping and air conditioning systems. Each valve is illustrated and described with information on sizes available. Pressure ratings from 125 to 300 lb. Threadless valves of bronze (gates, globes and checks) included. — The Fairbanks Co.

673 Bronze Valves

Four page bulletin on globe and angle bronze valves for accurate throttling of steam, water, oil and gas, with rising stems, union bonnets, and 500 Brinell stainless steel plug type seats and discs. Features described, dimensions given, service ratings shown. — Walworth Co.

674 Butterfly Valve Selection

Condensed bulletin 50-1 illustrates wide selection of body designs, ratings of butterfly valves and shows several special designs made to handle unusual problems. Cross index system permits quick selection of valve best suited for any requirement or application. — Continental Equipment Co., Div. of Fisher Governor Co.

675 Butterfly Valves

Catalog of new line of basic butterfly valves available with ceramic, rubber or nickel plating and with wide selection of screwed, flanged, grooved and plain ends. Details sizes, dimensions, types and features. — The Lunkenheimer Co.

676 Butterfly Valves

Bulletin 583 describes "Wafer" type butterfly valves with manual or automatic control and shut-off of air, gases, steam, water, process fluids or semi-solids. Valves have full range of pressures and temperatures, save space, are easy to install, provide better flow characteristics and have low pressure drop. Metal-to-metal or rubber-seated. — W. S. Rockwell Co.

677 Cast Steel Gate Valves

Four page bulletin covers 150 and 300 lb cast steel gate valves, with check list of features, dimensions and weights. Tapered roller bearing yokes, regularly furnished on 400 lb and higher pressure valves in sizes 8 in. and larger, can be provided on 150 lb and 300 lb valves. — Walworth Co.

678 Check Valve Pressure Loss Tests

Pressure loss tests for a series of Williams-Hager silent check valves were conducted by Cornell University, Department of Hydraulics, School of Civil Engineering. Results in bulletin cover valves for pipe diameters ranging from 4 through 18 in.—Williams Gauge Co., Inc.

• *Be sure to type or print your name and address clearly when you request copies of these catalogs and bulletins.*

679 Check Valves

Eight page bulletin describes basic units which, when combined with standard pipe fittings of almost any type, form complete check valves suitable for a wide variety of services. Included are construction details, ratings, and a table of sizes and dimensions. Illustrations show use with different pipe fittings, tanks and pressure vessels.—Durabla Mfg. Co.

680 Check Valves

New 16 page catalog 162 describes "Streamflow" center guided check valves in sizes 1 through 20 in. for pressures from 125 through 2500 lb. Available in cast iron, cast steel, stainless, bronze, aluminum and other alloys. Features described and illustrated, specifications and dimensions tabulated.—Miller Valve Co., Inc.

681 Check Valves To Control Surge Pressures

Four page bulletin covers in detail silent check valves and includes technical data, specifications and installation data on two types of valves. — center guided type for service in lines from 1 through 10 in.; and globe type for lines from 3 to 24 in.—Williams Gauge Co., Inc.

682 Control Valves

Bulletin 150 explains eccentric action and exclusive features, materials, dimensions and accessories of control valves. Applications of pneumatic, hydraulic, electric actuation for throttling and on-off are given.—DeZurik Corp.

683 Copper Tube Fittings and Valves

Publication C-12 gives complete listing with illustrations of the wide range of wrought copper and cast brass solder type fittings for use with copper tube.—Anaconda American Brass Co.

684 Corrosion Resistant Fittings

Twenty-four page bulletin on corrosion resistant fittings includes engineering data, details on complete line of stainless steel "long tangent" pipe fittings, ½ through 4 in., for lightwall schedules 5 and 10 process piping. Information on butt welding, socket joining and use of unique insert flange.—Speedline Fittings Div., Horace T. Potts Co.

685 Corrosion Resistant Fittings, Flanges

"Van-Cor" line of corrosion resistant unplasticized polyvinyl chloride pipe, fittings, valves, fabrication items, etc. described in engineering catalog. Pipe sizes range from ¼ through 12 in. IPS, in four schedules; molded fittings through 6 in., molded flanges through 8 in. Drainage fittings from 1½ through 4 in., with corresponding P and S traps. — The Colonial Plastics Mfg. Co., Industrial Div.

686 Corrosion Resistant Welding Fittings

Catalog describes dimensions and analyses and gives corrosion tables for corrosion resistant welding fittings.—C. A. Roberts Co.

687 Diaphragm Valves

Grinnell-Saunders diaphragm valve catalog S-V-60, 48 pages, describes and illustrates their exceptional fittness for handling materials which are corrosive, viscous, fibrous, solids in suspension, liquids, gases and semi-fluids, under pressure or vacuum. Exclusive construction features, wide choice of body, linings and diaphragm materials; long life, simple maintenance.—Grinnell Co., Inc.

688 Eccentric Balancing Valves

Eight page bulletin 110 describes the eccentric principle under which these valves are designed. It also lists the dimensions, wide variety of materials, etc., of the manually-operated valves used on air conditioning installations. For chilled water balancing, hot water, pump shut-off, condenser and cooling tower lines and shut-off.—DeZurik Corp.

689 Eccentric Plug Valve

Bulletin AE 1059B describes new eccentric plug valve which features minimum number of parts, is non-lubricated for little maintenance, maximum pipe opening with special elastomer-covered plug for bubble-tight sealing, no packing required, design eliminates ordinary bonnet assembly. Working pressure 150 lb; ½ through 12 in. (larger on application). — W-K-M Div. of ACF Industries, Inc.

690 Electric Zoning Valve

Folder 2120-5 describes "Hush-A-Matic" electric zoning valve for individual room control of chilled and hot water weather conditioning systems. It stops water hammer, hum and opening noises. Solenoid is guaranteed forever against damage from moisture. — Automatic Controls Div., Hays Mfg. Co.

691 Forged Flange and Fitting Specifications

Forty-eight page brochure FB 77 summarizes most commonly used ASME and ASA specifications for welding fittings and forged steel flanges. Intended as an aid in computing preliminary design requirements for pressure piping systems.—Babcock & Wilcox Co., Tubular Products Div.

692 Forged Naval Bronze Ball Valves

Bulletin DH-38 describes new Fig. BL-300 ball valve which opens or closes with quarter turn of handle. Specifications on materials and dimensions, pressure and temperature ratings given. "Auto-mating" Buna "N" seats impregnated with molybdenum disulphide provide slippery, non-galling surface, insure smooth operation with minimum wear. — R-P&C Valve Div., American Chain & Cable Co., Inc.

693 Forged Stainless, Alloy, Carbon Fittings

Application of high pressure (2000, 3000, 6000 lb) pipe fittings and eight types of unions described in bulletin A3-S1. Data on screw end and socket welding, ⅛ to 4 in., stainless, alloy and carbon steel fittings includes dimensions, weights. Thirty-two pages (includes engineering specifications, data.) — H. K. Porter Co., Forge and Fittings Div., W-S Fittings Works.

694 Forged Steel Fittings

Forged steel fittings brochure FSF-2 includes technical data and availability of all forged steel socket weld fittings and forged steel screwed fittings in accordance with B16.11 and MSS SP49. — Bonney Forge and Tool Works.

695 Forged Steel Unions

Specifications of screw end and socket welding, ⅛ to 3 in., unions for high pressure, high temperature applications given in bulletin U-2. Dimensions and weights of forged steel unions, tongue and groove and O-ring flange unions; also orifice, tab orifice, clamp ring, insulated, 2-lug nut and "4-Star" lug nut unions. — H. K. Porter Co., Forge and Fittings Div., W-S Fittings Works.

696 Heating Safety Devices, Controls

Twelve page condensed catalog C-60 illustrates and describes complete line of heating and plumbing safety devices and controls. Operation and function of each product plus operating data, dimensions, weights, ranges and settings given. — Watts Regulator Co.

697 Heavy Pattern Metal Seat Butterfly Valves

Bulletin 76 describes heavy pattern metal seat design butterfly valves for pressure drops to 1200 psi, inlet pressures to 6000 psi (depending on size and construction) and temperatures from −300 to +2000 F. Includes information on construction, dimensions, actuators, accessories. — Continental Equipment Co., Div. of Fisher Governor Co.

698 Iron Body Gate Valves

Bulletin describes standard iron body gate valves, of "8-in-1" design, outside screw and yoke, non-rising stem, flanged and screwed, all-iron, bronze mounted. The eight key features are described, service ratings are given, dimensions tabulated, and material specifications shown. — Walworth Co.

699 Lubricated Plug Valves

Catalog 400 contains complete information on the full line of semi-steel lubricated plug valves, sizes ½ through 30 in., pressure ratings 175 through 800 lb WOG. Details on accessories, special valves and lubricants included. — W-K-M Div. of ACF Industries, Inc.

Advertisers in Heating, Piping & Air Conditioning have furnished these descriptions of their catalogs, bulletins, and other helpful data. Copies are available on request.

700 Magnetic and Motorized Valves

Catalog V-61 illustrates and lists specifications of magnetic and motorized valves for use with air, water, gas, steam, oil and refrigerants. Solenoid coil rating table and dimensional drawings included. — The Mercoid Corp.

701 Non-Lubricated Plug Valves

Bulletin 110 describes eccentric non-lubricated plug valves available with the following corrosion resistant materials: Wide variety of plug facing materials, most castable materials including semi-steel, bronze, ni-resist, stainless steel, steel, aluminum, ductile iron, nickel, "Monel" and "Hastelloy," in wide range of sizes. — DeZurik Corp.

702 Non-Lubricated Plug Valves

"Durco" type FT "Sleeveline" valves are non-lubricated plug valves available in carbon steel, 316 S.S., "Durimet-20," "Monel," nickel, "Chlorimet" 2 and 3. Straightway and three-way design. Sizes ¼ through 6 in. "Teflon" sleeve between plug and body serves as lubricant and sealing medium. — The Duriron Co., Inc.

703 Pipe Line Strainers

Bulletin 2000 describes Y type strainers for steam, air, oil, gas, water. Includes photographs, drawings, dimensions for screwed strainers ¼ to 2 in.—Frank D. Riggio Co., Inc.

704 Piping for Nuclear Applications

Twenty page illustrated brochure 60A, "Critical Piping for the Nuclear Age," describes piping, fittings, flanges, piping fabrication and erection work performed for nuclear piping systems.—Midwest Piping Co., Inc.

705 Plug Valves for Air Conditioning

How lubricated plug valves can save maintenance, operating and installation costs in air conditioning systems is described in bulletin AP 1059. Dimensional data and other information. — W-K-M Div. of ACF Industries, Inc.

706 Pressure Regulators

Bulletin 160 illustrates and describes "Precision" pressure regulators, types AA and AR, and IA and IR suitable for steam or air service with either 300 lb bronze or 250 lb semi-steel body with stainless steel unit pilot valve, main valve and seat, ½ through 6 in.—O. C. Keckley Co.

707 Pressure Sealed Steel Valves

Bulletin DH-400 describes and gives detailed information on pressure sealed bonnet joint cast steel valves especially adapted for high pressure, high temperature steam service. Advantages are outlined, dimensions given and cutaways show construction and operation. — R-P&C Valve Div., American Chain & Cable Co., Inc.

708 Refrigerant Valves, Fittings, Flanges

Literature is available on shut-off, packed and packless, globe and angle, integral and flanged connection valves; through and angle type pressure relief valves; diaphragm and piston types, with and without seat lift, flow check valves; flanges and fittings; unions and flanged unions. — Henry Valve Co.

709 Remote Operation of Valves

For those concerned with valves and piping, bulletin sheet details adjustable sprocket rim with chain guide, a simple device for remote operation of overhead or otherwise out-of-reach valves. Gives price list, ordering directions and cites accident reduction, waste prevention and simplification of piping layout — Babbitt Steam Specialty Co.

710 Resilient Seated Butterfly Valves

Resilient seated type butterfly valves with "Keelok" removable rubber liner for applications where drop-tight closure is required described in bulletin 590X. Features include less weight and space, easier installation than gate valves, corrosion resistant, no fouling, self-cleaning negligible maintenance. Sizes to 36 in.—W. S. Rockwell Co.

711 Saddle Fittings

Four page brochure describes pre-shaped saddle fittings for branch connections in both 45 and 90 deg. Comparative cost chart shows benefits in dollars and cents between forged fittings and preshaped fittings. Specification chart for easy ordering with sample order blank shown, plus supplemental equipment and "how to install" in three steps.—Allied Piping Products Co.

712 Safety and Relief Valves

Comprehensive lines of bronze, iron and steel safety and relief valves in wing and top guided designs; cast iron safety valves; electrically actuated "Electromatic" relief valves; "Maxiflow" safety valves; "Y" bases; mufflers; maintenance kits described in 144 page catalog 700B. — Manning, Maxwell & Moore, Inc.

713 Safety Valves

Catalog FE-128 describes line of safety valves for steam and "Dowtherm" generators and piping, and for air and gas systems, air compressors, heating and plumbing installations, and general industrial services. — Farris Engineering Corp.

714 Seamless and Welded Welding Fittings

Twelve page bulletin 60-C describes new line of seamless butt welding fittings, now offered in addition to extensive line of welded type fittings. Manufacturing procedures, size ranges and types of available fittings — both stock and special — are listed and illustrated, together with a description of metallurgical and dimensional controls.—Midwest Piping Co., Inc.

See pages 2-59 and 2-60 for convenient reply card you should use to request copies of these bulletins

715 Seamless Welding Fittings and Flanges

Eight page brochure FB 502A covers carbon, alloy and stainless steel seamless welding fittings and flanges. Contains charts of standard sizes and schedules according to ASA B36.10 and ASA B36.19. Illustrates fittings and flanges commonly produced, lists sizes and types available. —Babcock & Wilcox Co., Tubular Products Div.

716 Selection of Welding Fittings

Twelve page brochure FB 78 contains data on materials selection, specifications and analyses, effects of alloying elements, mechanical properties, arc welding procedures and catalog information. This preliminary guide to the selection of welding fittings for pressure uses covers carbon through stainless steels.—Babcock & Wilcox Co., Tubular Products Div.

717 Slide Valves

Bulletin 501R tells about "Kwikleen" type slide valves for low pressure fluids, air or gases containing solids or for free-flowing granular materials that clog or jam conventional valves. Can be cleaned without removing from pipe line. Manual or automatic control.—W. S. Rockwell Co.

718 Solder End Valves

Two page circular 603 details sizes, dimensions, types and features of solder end globe, gate and check valves particularly suited for steam, hot and cold water lines, heating and air conditioning systems; oil, natural and manufactured gas lines; underground water lines; and industrial uses. — The Lunkenheimer Co.

719 Solder Joint Valves

Bulletin 581 describes uses and construction features found in solder joint valves for copper tubing installations. Cutaways show operation; detailed dimensions and instructions on installation given. Valves are for use on types K, L and M tubing. — Kennedy Valve Mfg. Co.

720 Solenoid Valves

Folder 2144-5 describes "Midg-O-Matic" valves which feature a waterproof coil known as "Kast-Coil," which is guaranteed forever. Designed for application where space is limited. Specifications available. — Automatic Controls Div., Hays Mfg. Co.

721 Steel Pipe Couplings

Bulletin gives sizes, lengths, threads, weights and carton contents of merchant, half and API line pipe couplings plus other information, with specifications on steel pipe, including standard, extra strong, double extra strong and structural pipe. — Wheatland Steel Products Co.

722 Strainer

"Straitflo" strainer for water, air, oil, steam and gas has noncorrosive parts with a 36 to 100 mesh screen. Flow area of screening is at least four times the pipe size, is suitable for pressures to 150 psi. Described in folder 2400. — Automatic Controls Div., Hays Mfg. Co.

An engineer or contractor obviously can't find *all* the information he needs in catalogs, bulletins and manuals — but he *can* find a great deal of the information that he must have.

723 T Ring Butterfly Valves

Bulletin 90 describes T ring butterfly valve which provides tight shut-off on applications up to 500 psi drop. Included are details of construction, flow characteristics, allowable pressure drops, dimensions, material specifications and chart for selecting T ring material. — Continental Equipment Co., Div. of Fisher Governor Co.

724 Unions and Union Fittings

"Dart" malleable iron unions and union fittings, made with bronze to bronze seats ground to a true ball joint and guaranteed to give a drop-tight seal, are described in circular D-1. Also included is an all-iron union recommended for services where bronze seats are not suitable. — The Fairbanks Co.

725 Valve Catalog Sheets

Standard presure globe and angle valves (1413-V); low pressure globe and angle valves (1409-V); standard and low pressure gate valves (1412-V); radiator and bypass valves and manifolds are described in condensed catalog sheets. — Ohio Brass Co.

726 Valve Disc Construction

Bulletin 574 on "Kennedized" discs describes how, through a special process in valve disc construction, valve service life is extended considerably. Available valves listed, cutaway and types of valves shown. Galling is eliminated and no repacking is required in 25,000 full cycles. Tells of proof of service through exacting tests. — Kennedy Valve Mfg. Co.

727 Valve and Fitting Catalog

Catalog, 464 pages, lists complete line of valves and fittings, gives description, working pressures, dimensions and weights. Federal specifications listed for bronze and iron valves. Engineering data gives conversion tables, equivalents, charts, nomographs. Capacity tables for safety and relief valves, data on flow of fluids included. — Crane Co.

728 Valves and Controls

Catalog contains installation, application, tabular and descriptive information for sizing and selecting thermostatic expansion valves, refrigerant distributors, solenoid valves, suction line regulators, hot gas bypass valves, float switches, high side float valves, evaporator controls and reversing valves for all refrigerants and all types of applications.—Alco Valve Co.

729 Valves for General Services

Valves for general services are discussed in bulletin E-165. Covered are class 125 single and double disc, class 250, cylinder operated valves, emergency protection valves, steam jacketed valves and valves for boiler blow off. — Everlasting Valve Co.

730 Water Hammer and Its Control

Eight page bulletin, "Water Hammer — Cause, Effect and Control in Piping Systems," includes technical data, pressure diagrams and detailed conclusions on the handling of surge pressures which result in water hammer.—Williams Gauge Co., Inc.

731 Welding and Other Fittings

1961 catalog W-6 on "Weldolet" welding fittings, "Sockolets," "Thredolets," "Elbolets," "Brazolets," "Sweepolets" and forged steel fittings outlines technical data and numerous applications of these fittings. — Bonney Forge and Tool Works.

Warm Air & Direct Fired Heating

732 Classroom Heating, Air Conditioning

Bulletin CC-605 provides school heating, cooling and ventilating information and application of "Comfort Curtain" system. Covers research and air distribution, heat gain and loss, heat source — warm air, hot water, steam, electric and heat pump — and air conditioning and controls.—Lennox Industries Inc.

733 Data Sheets for Induction Units

Specifications for induction units used for heating venting, exhausting and material handling are given in data sheets. Flow factors are indicated for oil, gas, coal and incinerators. Basic specifications in tabular form include sizes 6 to 30 in., recommended vertical installation, horizontal connections, dimensions of each unit, motor performance, blower diameter. — Quickdraft Corp.

734 Direct Fired Heaters

Direct fired, combination gas-oil, floor mounted heater has adjustable discharge heads. Heater is UL approved, all fuels, all capacities and arrangements. — Arkos Mfg. Co.

735 Direct Fired Water Chiller-Heater

Four page illustrated brochure describes new gas fired model DF-3000 direct fired, 25 ton water chiller-heating unit. Gives features, applications, specifications, dimensions and other information.—Arkla Air Conditioning Corp.

736 Gas Fired Heaters, Duct Furnaces

General catalog SA-5900 describes line of gas fired unit heaters, duct furnaces, heavy duty heaters, blower fans and new motorized flue exhauster. Dimensions, performance data and application suggestions are included. — Reznor Mfg. Co.

737 Gas and Oil Fired Forced Draft Furnaces

Hi-boy and lo-boy, counterflow and horizontal models, gas and oil fired, forced draft furnaces come in range of from 80,000 to 250,000 Btu per hr. Folders VGG, CFG, LFG and HFG cover gas fired models, while folders COF, VOF, LOF and SOF cover oil fired. — Welbilt Air Conditioning and Heating Corp.

738 Gas Unit Heaters

Complete range of fan and blower type gas unit heaters and duct furnaces described in 12 page brochure GH-HP. Photos, drawings, diagrams, tables, charts and specifications to simplify proper selection of equipment type and size included. — Hastings Air Control, Inc.

739 Heavy Duty Heaters

Bulletin 31b provides complete specifications and dimensions on heavy duty heaters for all fuels in capacities from 225,000 to 3,150,000 Btu. — Campbell Heating Co.

740 Indirect Fired Space Heaters

Form 550-1-60 describes "Champion" TD series indirect fired space heaters for use with gas, oil or combination fuels with outputs from 400,000 to 4,000,000 Btu, and gives complete selection of sizes and styles. Features packaged burners or total designed heaters. Factory wired and fired. UL and AGA approved. Stainless steel heat exchanger. — National Heater Co., Inc.

741 Industrial Direct Fired Heater Manual

New application manual for industrial direct fired heaters covers survey procedures, transmission factors, conduction, infiltration, exhaust calculations, estimating factors, open loading-door heating, fuel pipe designing, process heating calculations, make-up air systems, high temperature psychrometric charts, conversion tables, reference data.—Lennox Industries Inc.

742 Industrial Direct Fired Heaters

Two bulletins describe models AT and OG series of industrial space heaters. Gas, oil or combination fuel burners with pushbutton changeover. Outputs from 400,000 to 2,000,000 Btuh. Rugged constructions with completely enclosed burner, adaptable for space heating, ventilation, make-up air, process heating, air conditioning.—Lennox Industries Inc.

743 Registers, Grilles and Diffusers

Sixty-eight page catalog A for 1960 on air conditioning registers, air conditioning grilles, air conditioning diffusers, pressure dampers and accessories. The index includes products for residential-gravity, and commercial and industrial. — United States Register Co.

744 Space Heaters

Bulletin 580-13 contains drawings and specifications for space heaters with output capacities from 200,000 to 500,000 Btu per hr. The "Paraflo" heater is used principally in medium sized industrial buildings, commercial and institutional buildings.—Dravo Corp.

745 Space Heaters

Bulletin 580-12C describes features of "Counterflo" space heaters ranging in output from 400,000 to 2,000,000 Btu per hr for a wide range of industrial applications. Drawings, specifications and other engineering data included.—Dravo Corp.

746 Space Heaters

Form 811-R covers "Therma-flow" quality, economy priced line of space heaters with stainless steel combustion chamber and aluminized steel heat exchanger. Universal application, horizontal, upflow, downflow. Sizes from 175,000 to 1,000,000 Btu. Gas, oil or combination fuels.—National Heater Co., Inc.

747 Stainless Steel Heat Exchangers

Technical data bulletins cover stainless steel heat exchangers. Included in the line is a wide variety of models, 45,000 to 480,000 Btu, vertical and horizontal, floor and suspended type furnaces and heaters.—Hayes Furnace Mfg. & Supply Co.

748 Tubular Steel Heaters

Bulletin 57M-1 gives engineering and dimensional information on "Compacto" and "Adapto" forced air vertical steel tubular heaters for gas, oil or coal. Capacities from 175,000 to 2,379,000 Btu outputs, this series can be easily field converted to any of the above fuels. Designed to meet government specifications for military installations. — Mammoth Industries, Inc.

749 Warm Air Furnaces and Burners

1961 catalog includes complete line of gas and oil furnaces, domestic and industrial gas conversion burners, gas and oil hot water and steam boilers, gas unit heaters, and air conditioning equipment. — Roberts-Gordon Appliance Corp.

750 Year 'Round Conditioner

Four page folder describes many features of a deluxe year 'round conditioner. Specially featured is an air bypass damper which provides correct air volume for heating or cooling without seasonal adjustment. — Janitrol Heating & Air Conditioning Div., Midland-Ross Corp.

Water Treatment & Corrosion Control

751 Air Conditioning Cooling Water Treatment

Bulletin 117 describes advantages of chromate type liquid materials for prevention of corrosion and scale deposition in air conditioning cooling water systems. Use of a specially designed "Micro" chemical feeder which requires a minimum of attention is recommended to eliminate the necessity for manual daily chemical feeding. —The Bird-Archer Co.

752 Amines for Corrosion Control

Bulletin CP-100 describes advantages of amines in corrosion protection of steam and condensate return systems, with graphs and case histories. Eight point water treatment service, designed to keep operating costs at a minimum and boost efficiency, is described. — The Bird-Archer Co.

753 Automatic Water Softeners

Bulletin 400A describes automatic water softeners for heavy duty service, gives complete specifications for 17 stock models, installation diagrams and operation information. Stock models in capacities up to 1.5 million grains, single unit; twin unit up to 3 million grains. Flow rates up to 175 gpm. — Bruner Corp.

754 Commercial Water Softeners

Bulletin 2-368 covers specification and installation of "package" type zeolite water softeners for commercial applications. Both manual and automatic models listed, with softening capacities from 150,000 through 900,000 grains, flow rates to 200 gpm. Available in 26 stock sizes. — Bruner Corp.

755 Manual Type Water Softeners

Bulletin 200A deals with manual type softeners with single lever multiport valve control, gives complete specifications for 18 stock models, with installation diagrams, descriptions and operation data. Capacities to 1.5 million grains single unit; 3 million grains twin unit; flow rates to 175 gpm. — Bruner Corp.

756 Protecting Metal Surfaces

"Pioneer" metal protectors, fluid type mastics designed for the protection of metal surfaces, provide excellent protection against acid, alkali and salt corrosion, are waterproof, fungus proof and provide excellent abrasion resistance. Can be applied over bare, slightly oily, primed or painted surfaces. Surface need not be galvanized.—Witco Chemical Co., Inc.

757 Scale and Slime Control

Bulletin 58-A tells about "Airefiner 54" single package compound which keeps calcium and magnesium salts from depositing as scale on equipment, inhibits growth of algae and slime forming organisms, and controls water pH to prevent corrosion in recirculating systems. — Oakite Products, Inc.

758 Solving Water Cooling Problems

Manual on how to correct water cooling problems in air conditioning and refrigeration systems tells how water treatment programs can solve troubles created by scale deposits and slimes. — Virginia Smelting Co.

When you use the reply card on pages 2-59 and 2-60 to request the literature you want, please circle clearly the corresponding item number on the card for each catalog or bulletin to be sent to you.

759 Treatment for Air Washing Systems

Service bulletin 97-A tells how "55M" effectively controls slime and corrosion in air washing systems in tobacco, textile and other plants. — Oakite Products, Inc.

760 Water Sampler for Boiler Blowdowns

Leaflet describes boiler water sampler suitable for boiler blowdowns to 900 psi and 750 F. Body is 4½ in. OD by 16 in. long. Coil contains 30 ft of copper tube. This sampler is available with stainless steel cooling coil when required.— Rempe Co.

761 Water Treatment

Folder F-9736R1 describes a 10 minutes a day, do it yourself procedure with "Airefiner 52" to eliminate scale, slime, algae and reduce downtime in air conditioning systems. — Oakite Products, Inc.

Welding Equipment

762 Backing Rings

Bulletin 58-2 and three leaflets describe types C, CC, and CCC backing rings for pipe welding, with dimensions, specifications and other information. How they are used and how the welding procedure is simplified are explained. — Robvon Backing Ring Co.

763 Electrode Holders, Ground Clamps, Etc.

Line of "Caddy" are welding accessories, including electrode holders, ground clamps, quick connectors for arc welding field described in literature. — Erico Products, Inc.

• *See the index on the front cover of this supplement to Heating, Piping & Air Conditioning for the classifications of products under which this literature is listed.*

764 Selenium Rectifiers

Twelve page brochure on selenium rectifiers covers such subjects as life and aging, overloads, selenium vs. other rectifiers, and offers information on this controversial matter. — Miller Electric Mfg. Co.

765 Welders

Forty-eight page brochure tells the "who, when, where, why, how" of the manufacturer's welders. — Miller Electric Mfg. Co.

766 Welders and Accessories

Twelve page brochure titled "A Full Line of Fine Welders" gives full information on welders and accessories. — Miller Electric Mfg. Co.

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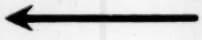

(Index to Manufacturers by Item Numbers is on page 2–2)

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